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Dedication

This thesis is dedicated to my late Father, Mr. Foday M. Sillah, whose wish has always to see me become an academic doctor. He invested so much in me, but did not live long enough to witness this day.

Summary

The purpose of this thesis is to provide an empirical analysis of the effects of foreign aid on foreign direct investment and the labour market in conflict-affected countries, as well as providing an analysis of war victims' (i.e. war wounded and war widows) attitudes towards the peace building process through a case study of post-conflict Sierra Leone. In particular, the focus is on three main areas: First, to examine the relationship between disaggregated aid and foreign direct investment in conflict-affected countries using panel regression analysis and instrumental variable techniques, as well as examining the long-run relationship between multilateral aid (disbursed) and foreign direct investment using the error correction panel co-integration approach of Persyn and Westerlund (2008). Second, to examine the relationship between disaggregated aid and the labour market, as well as demographic components of the latter (females and youths) in conflict-affected economies using fixed and random effects models and reverse causality, as well as investigating the long-run relationship between foreign aid and employment rates in these economies by employing the aforementioned error correction panel co-integration approach. Third, to provide an analysis of war victims' (war wounded and war widows) attitudes towards the peace building process in post-conflict Sierra Leone using ordered probit approach.

In most post-conflict societies, foreign aid, foreign direct investment and the labour market are crucial factors. In particular, they can play a significant role in the accumulation of human and physical capital aimed at the enhancement of economic growth and development of these economies. Furthermore, an understanding of war victims' attitudes towards peace can be imperative for mitigating the potential risk for conflict reoccurrence and thus ensuring sustainable peace building and development. The first chapter introduces the background and motivation of the study. It also highlights the aims and objectives of the study and briefly discusses the advantages of the methods employed, the contributions to literature, and a brief summary of the estimated results, as well as the structure of the thesis.

The second chapter discusses the theoretical framework, in particular, the theoretical relationship between foreign aid and growth, foreign aid and foreign direct investment, and foreign aid and the labour market are examined. The chapter also contains a detailed review of the extant empirical evidence regarding links between foreign aid and the itemised macroeconomic variables, as well as identifying the gaps in the literature. The third chapter provides concepts and definitions relating to post-conflict economies, whilst

the fourth to the sixth chapters provide three empirical analyses, which address the identified gaps in the literature.

More specifically, chapter four examines the effect of foreign (disaggregated) aid on foreign direct investment in conflict-affected countries. The empirical estimation approach in this chapter entails a panel regression analysis (fixed effects and random effects) and instrumental variable techniques. The chapter also explores the long-run relationship between multilateral (disbursed) aid and foreign direct investment using the error correction panel co-integration approach of Persyn and Westerlund (2008), which accounts for cross-sectional dependence. The results show that multilateral aid and foreign direct investment have a long-run relationship in these economies. The results also suggest a positive and significant relationship between physical capital aid and foreign direct investment in conflict-affected economies and thus, provide an indication that physical capital aid has a 'crowding-in' effect on foreign direct investment. Moreover, the effect of physical capital aid and complementary aid is found to be positively associated with foreign direct investment and primary commodity exports emerge as being likewise, in these economies. However, conflict is found to be negatively associated with foreign direct investment in the focal countries, which is robust across all specifications and estimators.

The fifth chapter examines the relationship between disbursed (disaggregated) aid and the labour market, as well as certain demographic components of this market (i.e. females and youths) in conflict-affected economies. Further to using panel regression analysis (fixed effects and random effects models) to examine the above relationship, the analysis in this chapter also employs the error correction panel co-integration approach of Persyn and Westerlund (2008) to examine the long-run relationship between foreign aid and the employment rate. The results show that there is weak evidence of a co-integrating equilibrium relationship between these two variables in these economies. Furthermore, to account for the possibility that the impact of the explanatory variables on the labour market may take some time, lag values are used in the model, which also helps to resolve problems of simultaneity. The results indicate that a unit change in the previous value of the inflow of foreign direct investment is positively associated with labour force participation among the total working-age population and the magnitude of the effect is large relative to that for the random effects. Tertiary school enrolment is found to be positively associated with labour force participation among the total working-age population in these economies. The estimates also show that conflict has a negative and significant relationship with labour force participation and employment rates among the

young working-age group, as well as the female labour force participation rate. In the case of disbursed aid (disaggregated), the results reveal that technical aid has a positive and significant relationship with labour force participation and employment among the young working-age population. Multilateral aid is also found to have a positive relationship with employment among young working age group. As mentioned, it is apparent from these results that the impacts of the explanatory variables do take some time to happen in these economies. Based on the reverse causality approach, there is no evidence of this running from overall labour force participation to total aid, multilateral aid, bilateral aid or technical aid. In addition, there is no evidence of reverse causality running from the employment rate to these aid variables.

The sixth chapter examines war victims' (i.e. war wounded and war widows) attitudes towards the peace process in post-conflict Sierra Leone using the ordered probit approach of Torgler (2003), Torgler et al. (2004, 2007), and Alm et al. (2005, 2006) and linear probability model. The results, which confirm the hypothesis that women have more positive attitudes towards the peace process relative to men among war victims in Sierra Leone is consistent across all specifications and accord with previous studies. The estimates reveal some negativity amongst relatively younger women, but that positive attitudes tend to predominate amongst those people aged 46 and above. Moreover, participation in the truth and reconciliation commission is found to be positively associated with attitudes towards how to achieve peace among war victims. Furthermore, among war victims being unemployed is found to be negatively associated with attitudes towards the peace process relative to those employed, a finding that is consistent across specifications. Finally, the provision of foreign aid is also found to be positively associated with attitudes towards the peace process among war victims in Sierra Leone.

Details of the main contributions are presented in chapter one, chapters four to six, as well as in the concluding chapter seven, which also contains a summary of the key findings and policy recommendations, as well as suggestions for further research.

List of Abbreviations

2SLS	Two Stage Least Squares
3SLS	Three Stage Least Squares
ADF	Augmented Dickey Fuller
ARDL	Autoregressive Distributive Lag
AR	Autoregressive
AIC	Akaike Information Criteria
APC	All Peoples' Congress Party
AFDB	African Development Bank
AFRC	Armed Forces Revolutionary Council
CIPS	Cross-Sectional Augmented by Im-Pesaran and Shin
CIFP	Country Indicators for Foreign Policy
CRS	Creditor Reporting System
CCOL	Currently a Colony of the Donor
COML	Shared Official Common Language
CD	Cross-Section Dependence
CADF	Cross-Sectional Augmented Dickey Fuller
CSSP	British Commonwealth Community Safety and Security Project
CIVIPOL	United Nations Civilian Police
CDIDI	Complaints, Discipline and Investigation Department
CDF	Civil Defence Forces
DFID	Department for International Development
DAC	Development Assistance Committee
DDR	Demobilization Disarmament and Reintegration
ECOL	Ever a Colony of the Donor
EU-Aid	European Union Aid
ER	Employment Rate
ECOWAS	Economic Community of West African States

ECOMOG	Economic Community of West African States Monitoring Group
FE	Fixed Effects
FDI	Foreign Direct Investment
FLFPR	Female Labour Force Participation Rate
FER	Female Employment Rate
GDP	Gross Domestic Product
GMM	Generalised Method of Movements
GOSL	Government of Sierra Leone
GRS	Governance Reform Secretariat
GTZ	Germany Development Agency
IV	Instrumental Invariable
IMF	International Monetary Fund
ILO	International Labour Organisation
IDP	Internally Displaced Persons
ICRG	International Country Risk Guide
IRC	Inter-Religious Council
ICRC	International Committee of the Red Cross
IRIN-UN	Integrated Regional Information Networks of the United Nations
IOM	International Organisation for Migration
ICTJ	International Center for Transitional Justice
IMATT	International Military Assistance Training Team
KLIM	Key Indicators of the Labour Market
KfW	Germany Development Cooperation
LIML	Limited Information Maximum Likelihood
LPM	Linear Probability Model
LM	Lagrange Multiplier
LFPR	Labour Force Participation Rate
MDGs	Millennium Development Goals

MRP	Military Reintegration Programme
NGOs	Non-Governmental Organisations
NPRC	National Provisional Ruling Council
NCRRR	National Commission for Resettlement, Reintegration and Rehabilitation
NaCSA	National Commission for Social Action
NCDRR	National Commission for Disarmament Demobilisation and Reintegration
OLS	Ordinary Least Squares
OECD	Organization for Economic Co-operation and Development
ODA	Official Development Assistance
OAU	Organisation of African Union
RE	Random Effects
RUF	Revolutionary United Front
RSLMF	Republic of Sierra Leone Military Forces
ROP	Reintegration Opportunity Programme
RSLAF	Republic of Sierra Leone Armed Forces
SLTRC	Sierra Leone Truth and Reconciliation Commission
SLPP	Sierra Leone Peoples' Party
SLTU	Sierra Leone Teachers Union
SLIRC	Sierra Leone Inter-Religious Council
SAPA	Social Action Poverty Alleviation programme
SCSL	Special Court of Sierra Leone
TRC	Truth and Reconciliation Commission
USAID	United States Agency for International Development
UN	United Nations
UNDP	United Nations Development Programmes
UK-Aid	United Kingdom Aid
US-Aid	United States Aid
UNIFM	United Nations Fund for Women

UNIPSIL	United Nations Integrated Peacebuilding in Sierra Leone
UNPBF	United Nations Peace Building Fund
UNHCR	United Nations Refugee Agency
UNAMSIL	United Nations Mission in Sierra Leone
UNICEF	United Nations Children's Fund
VAR	Vector Autoregressive
VECM	Vector Error Correction Model
WDI	World Bank Development Indicator
WFP	World Food Programme
WB	World Bank
YLFPR	Youth Labour Force Participation Rate
YER	Youth Employment Rate

Chapter 1
Introduction

1.1 Introduction and Motivation for the Study

Foreign aid, otherwise known as foreign assistance, has been a key issue of renewed interest among researchers both at the micro and macro levels, in particular, due to the levels of aid inflow into developing countries, as well as those affected by conflict. Most conflict-affected countries or those emerging from protracted civil wars have attracted substantial sums of foreign aid, most of which is geared towards the promotion of economic growth, security, good governance, poverty reduction, socio-economic reconstruction and recovery programmes (provision of technical training, rebuilding of infrastructure, and human capital investment), and peace building initiatives [Collier and Hoeffler (2002) and (2004), Addison (2000), Damekas et al. (2002) and Boyce and Forman (2010)]. Although such provision has been a long standing phenomenon, the extent to which the objectives are being realized is still clouded in a lot of controversy. For instance, Griffin (1970) and Griffin and Enos (1970) based on displacement and fungibility hypotheses, argued that foreign aid displaces domestic savings because a greater portion of it is increasingly utilised for consumption rather than investment in developing economies. Griffin (1970), further argued that foreign aid is usually not used by recipient countries to finance intended investment projects, but instead is spent on those on the margins, which are likely to be unproductive or used for consumption. Easterly (2002) also contended that aid broadens government bureaucracies, contributes to sustaining bad government and it can make room for corruption, as it can be used by ruling government officials to enrich themselves at the expense of poor citizens.

From the perspectives of conflict-affected countries, studies on post-conflict settings have also focused on aid, policy and growth [Collier and Hoeffler (2002b, 2004)]; aid and conflict [Addison (2000)]; humanitarian and reconstruction aid [Damekas et al. (2002)]; determinants of post-conflict economic assistance [Kang and Meernik (2004)]; and on peace attitudes using opinion survey data [Hermann et al. (2002), Mi Ari (1999), Wilcox et al. (1996), Gwartney-Gibbs and Lach (1991)]. However, none of these has explored the effects of disaggregated aid on foreign direct investment and labour market performance in conflict-affected countries.

This thesis examines the effects of post-conflict aid and in particular, the relationship between foreign aid, foreign direct investment, and labour market performance in conflict-

affected countries. It also examines war victims' (i.e. war wounded and war widows) attitudes towards the peace process with special reference to post-conflict Sierra Leone. The thesis draws on these three strands (foreign aid and foreign direct investment, foreign aid and labour market, and attitudes towards peace process among war victims) in order to promote understanding of the relationship between foreign aid and economic development in such countries. In most developing countries, foreign aid, foreign direct investment and the labour market are very crucial factors. They can play a significant role in the accumulation of human and physical capital as well as in the enhancement of economic growth and development in these economies, with post-conflict countries being no exception. Furthermore, an understanding of war victims' attitudes towards peace can be essential for mitigating the potential risk of conflict re-occurrence and for a sustainable peace building and development in such countries.

1.2 Aims and Objectives of the Study

The main objective of this thesis is to provide an empirical analysis of the effects of disaggregated aid on foreign direct investment and the labour market in conflict-affected countries, as well as an analysis of war victims' attitudes towards the peace building process in post-conflict Sierra Leone. More specifically, there are three aims of this study and these are as follows.

The first aim is to examine the relationship between disaggregated aid and foreign direct investment in conflict-affected countries using a panel regression analysis, instrumental variables and error correction based panel co-integration approach. Although several studies have examined the relationship between foreign aid and foreign direct investment in developing countries, the purpose here is to examine this within the context of conflict-affected countries using the aforementioned methodologies. Additionally, studies on post-conflict societies have focused on aid, policy and growth [Collier and Hoeffler (2002b, 2004)]; aid and conflict [Addison (2000)]; humanitarian and reconstruction aid [Damekas et al. (2002)]; and the determinants of post-conflict economic assistance [Kang and Meernik (2004)]. This research differs from theirs, because the relationship between disaggregated aid and foreign direct investment has been overlooked in nearly all, if not all, empirical studies that have been focused across post-conflict environments. Secondly, another goal is to examine the relationship between disaggregated aid and the labour market, as well as the demographic components of the labour market (females and youths) in conflict-affected economies (also known as post- conflict economies) employing a fixed and random effects, reverse causality and error correction panel co-integration approach.

Finally, this work also provides an analysis of war victims' attitudes towards the peace building process in post-conflict Sierra Leone using ordered probit approach.

A panel data regression analysis (fixed effects and random effects) is used to examine the relationship between foreign aid (disaggregated) and foreign direct investment, as well as foreign aid (disaggregated) and the labour market, because it possesses several advantages as compared to conventional cross-sectional or time series data sets [see Hsiao C (2007 pp.3-6)]. Firstly, panel data possess more degrees of freedom and sample variability which leads to more consistent estimates. Secondly, it makes possible for the control of omitted (missing) variables or unobserved heterogeneity. Thirdly, it can also be useful in dealing with dynamics over time and finally, it helps in reducing any problem of collinearity [Hsiao C (2007 pp.3-6)]. In this respect, the use of fixed effects enables us to control for unobserved country effects, while the random effects allows us to use further time-invariant control variables. The instrumental variable (IV) estimation technique is also employed to account for the problem of endogeneity, which is often associated with foreign aid. Limited information maximum likelihood (LIML) and the Fuller's modified LIML (with alpha equal to 1) estimators are also employed to improve on the choice of the (IV) estimator and to examine whether comparable results hold across various estimators in the study [see Arndt et al. (2010 and 2015)].

To test whether any long-run relationship exists between multilateral aid and foreign direct investment, as well as between foreign aid and employment rate, the error-correction panel co-integration approach of Westerlund (2007) and Persyn and Westerlund (2008) is used, because it has several advantages over other techniques. First, it allows for cross-sectional dependence by means of bootstrapping. Secondly, it can capture long-run and certain short-term dynamics and thirdly, it can be helpful in dealing with intercept and trend parameters. Finally, the approach can control for serially correlated error terms, and can as well be performed with no special factor restriction [ibid]. Prior to estimating the above long-run relationships, the panel unit root test proposed by Pesaran (2004) and Im-Pesaran and Shin (2003) are performed respectively to examine the order of integration of the series. However, the tests can be biased in the presence of cross-sectional dependence [Grimm and Herzer (2012), Damette and Fromentin (2013)]. To account for this, the Cross-Sectional Augmented IPS (CIPS) proposed by Pesaran (2007) is used, because of its advantages over the aforementioned tests. That is, the CIPS test statistics permits cross-sectional dependence by using "the augmented ADF regression with the cross-sectional

averages of lagged levels and first difference of the individual series in the panel" [Herzer and Grimm (2012 pp.2543), Pesaran (2007) also cited in Baltagi (2008), (2009)].

For this thesis, an ordered probit estimation is also employed to examine the factors that are associated with attitudes towards the peace process among war victims in Sierra Leone. Earlier studies on peace attitudes have employed bivariate regression or multivariate regression analysis to achieve this [Hermann et al. (2002), Mi Ari (1999), Wilcox et al. (1996) and Gwartney-Gibbs and Lach (1991)]. However, an ordered probit is employed for the current study because it has a number of advantages. First, it is appropriate for analysing data sets that are categorical as well as those involving ordered dependent variables [Xie et al. (2009)]. Secondly, attitudes towards the peace process can be associated with many factors and since they exhibit ordering, which enhances labels, the use of ordered probit can therefore be useful in modelling such an association. Thirdly, an ordered probit can be helpful because of the categorical description of the dependent variable. For instance, war victim's attitudes towards the peace process can be labelled categorically as highly positive, positive, indifferent, negative or highly negative. Fourth, it can be useful for analysing attitude scale models as it can "enhance the reflection of both the intensity and direction of the opinion of respondents" (in this case, war victims) [Long and Freese (2006 pp.137)]. Fifth, an ordered probit can also be beneficial for analysing micro-level data [Basile, et al. (2003)] and a sixth advantage is, it can take into account both the discrete and ordinal nature of the dependent variable [Bennell, et al. (2006)]. Seventh, it can be estimated using several software packages, as well as being theoretically useful relative to other models for analysing data that are discrete or ordinal in nature [Kockelman et al. (2002)]. Eight, it can identify significant relationships between a dependent variable (in this case, attitude towards the peace process) and the independent variables [Jung et al. (2012a), Torgler et al. (2007), Torgler and Schneider (2005) and (2004)]. Finally, it can enhance the estimation of marginal effects on the dependent variable.

1.3 Contribution to Literature

This thesis contributes to the existing literature in several ways and the first through to the fourth contributions pertains to the first empirical study in chapter four. The first contribution is with regards to examining the relationship between commitment aid (i.e. complementary aid and physical capital aid) and foreign direct investment in conflict-affected countries using panel regression analysis, as well as instrumental variable estimators [IV, LIML and Fuller modified LIML (with alpha equal to 1)]. The relationship

between complementary aid and foreign direct investment, as well as physical capital aid and foreign direct investment, although being researched in some empirical studies has been completely overlooked in the context of post-conflict environments. The result show that there is positive and significant relationship between physical capital aid and foreign direct investment in post-conflict economies.Thus, an indication that physical capital aid has a crowding-in effect on foreign direct investment in these economies.

The second contribution concerns estimating the long-run relationship between multilateral disbursed aid and foreign direct investment using the error correction panel co-integration approach of Persyn and Westerlund (2008). The results arrived at indicate evidence of a long-run relationship between multilateral aid disbursed and foreign direct investment in these economies. No study, to best of this researcher's knowledge, has examined the above relationship using this technique in this context.

Third, several studies have employed panel data analyses to examine the relationship between foreign aid and foreign direct investment in developing countries [Selaya and Sunesen (2012), Herzer and Grimm (2012), Kimura and Todo (2010), Bhavan, Xu and Zhong (2011), Carro and Larru (2010), Harms and Lutz (2006), Blaise (2005), Karakaplan et al. (2005), and Asiedu (2002)]. Whilst research into post-conflict societies has focused on aid, policy and growth [Collier and Hoeffler (2002b, 2004)]; aid and conflict [Addison (2000)]; humanitarian and reconstruction aid [Damekas et al. (2002)]; and the determinants of post-conflict economic assistance [Kang and Meernik (2004)]. Although this technique was also used for this thesis, new knowledge has been contributed because estimates of the relationship between disaggregated aid disbursed (multilateral aid, grant, technical assistance, bilateral aid, and major bilateral-donor aid) and foreign direct investment in conflict-affected countries have been provided for the first time.

Fourth, in exploring the relationship between foreign aid and foreign direct investment in chapter four, the effects of complementary aid and physical capital aid on foreign direct investment in post-conflict settings compared to other peaceful developing countries using a panel regression analyses is estimated, which has not been done previously.

The fifth novel contribution of this thesis, as explored in chapter five, is with regards to the estimates of the relationship between foreign aid and the labour market, as well as certain demographic components of the latter (females and youths) in post-conflict economies using panel regression analysis and reverse causality tests. Despite the vast interest in foreign aid, there is only one study, to the best of my knowledge, which has examined the relationship between reconstruction aid and the labour market using ordinary least squares

(OLS) and instrumental variable (IV) estimations, which was in the case of Iraq [see Iyengar et al. (2011)]. For the current thesis, cross-country panel regression analysis (fixed and random effects), and reverse causality tests are used to estimate the relationship between disaggregated aid and the labour market, as well as the demographic components of the labour market (females and youths) in these economies. The estimates reveal that technical aid has a positive and significant relationship with labour force participation and employment among the young working-age population. Multilateral aid has also been found to have a positive relationship with employment among the young working-age group.

The sixth significant contribution of this thesis, which is explored in chapter five, is the use of the error correction panel co-integration approach of Westerlund (2007) and Persyn and Westerlund (2008) to estimate the long-run relationship between foreign aid (aggregated) and employment rate. No previous study on post-conflict aid has explored this relationship using this approach, which allows for cross-sectional dependence by means of bootstrapping. In addition, it can capture long-run and certain short-term dynamics and it can be helpful in dealing with intercept and trend parameters. Finally, the approach can control for serially correlated error terms, and can be performed devoid of common factor restriction, all of which provides new evidence to the limited existing literature in this area of study. The results show that there is weak evidence of a long-run relationship between foreign aid and employment rate in the focal economies.

The seventh contribution of this thesis, as detailed in chapter six, pertains to providing an analysis using unique survey data to explore the attitudes of war victims (war widows and war wounded) towards the peace process in post-conflict Sierra Leone. To the best knowledge of this researcher, this is the first work to have examined war victims' attitudes towards peace since the outset of the civil war in Sierra Leone. The use of this unique survey data offers the opportunity to carefully investigate variables that might have an association with attitudes towards peace among war victims in that country. An understanding of these factors could be crucial to mitigating the potential risk for conflict re-occurrence and for a sustainable peace building, which may contribute to economic development.

The thesis further adds to extant work by employing an ordered probit estimation technique to examine war victims' attitudes towards the peace process in post-conflict Sierra Leone. Most studies on peace attitudes have used bivariate regression, multivariate regression analysis or linear probability models. Hence, to the best of my knowledge, this

study is the first to have examined war victims' attitudes toward peace using an ordered probit approach, followed by a linear probability model. The estimates indicate that participation in the truth and reconciliation commission is found to be positively associated with how to achieve a successful peace process among war victims in Sierra Leone.

Finally, this study contributes to extant work by capturing issues that are closely related to the feelings of those most affected, which will help policy-makers to develop coherent programmes that promote peace building as well as an awareness of the implications for long-term economic development planning in such societies. For instance, this thesis uniquely provides a detailed analysis on whether being unemployed or self-employed is associated with attitudes towards peace amongst war victims in Sierra Leone using the aforementioned approach. That is, a detailed analysis on whether being unemployed or self-employed has an association with attitudes towards peace among war victims has been provided for the first time. The results show that being unemployed is negatively associated with attitudes towards the peace process relative to those employed among war victims in Sierra Leone. However, the provision of foreign aid is found to be positively associated with attitudes towards the peace process among war victims in Sierra Leone.

1.4 Outline of the Thesis

This thesis is in line with cross-country studies in that it examines the effects of foreign aid on foreign direct investment and the labour market in conflict-affected countries. A single country case study is also undertaken that examines war victims' attitudes towards the peace process in post-conflict Sierra Leone. The work consists of seven chapters including the current one and the remainder are organised as follows. Chapter 2 discusses the theoretical framework and in particular, the theoretical relationships between foreign aid, growth, foreign direct investment, and the labour market are examined. The chapter also contains a detailed review of empirical evidence regarding links between foreign aid and the itemized macroeconomic variables, as found in the extant literature. In addition, gaps in this literature are identified. Chapter 3 provides concepts and definitions relating to post-conflict economies.

Chapters 4 to 6 provide three empirical analyses, which address the identified gaps in the literature. More specifically, Chapter 4 examines the effect of disaggregated commitment aid and disbursed aid on foreign direct investment in post-conflict economies. The panel nature of the data makes possible the estimation of fixed effects, random effects and instrumental variables (IV) regarding the effects of commitment aid (i.e. complementary

aid and physical capital aid) and disbursed aid (i.e. multilateral aid, grant, technical assistance and bilateral aid) on foreign direct investment in these economies.

The instrumentation strategy used in this thesis takes in to account both recipient and donor characteristics. Following Arndt et al. (2010) and Rajan et al. (2008), the predicted aid ratio is estimated and aggregated across donors to produce a fitted value, and subsequently used as an excluded instrument. The debt ratio, log of population, official common language and being currently a colony of the donor multiplied by the ratio of the log of population of the donor relative to the recipient country, are also used as excluded instruments to estimate the relationship between commitment aid (i.e. complementary aid and physical capital aid) and foreign direct investment in these economies. For estimating the effect of the long-run relationship between multilateral aid and foreign direct investment, Persyn and Westerlund's (2008) error correction panel co-integration approach is adopted, which takes in to account cross-sectional dependence by means of bootstrapping.

Chapter 5 examines the relationship between disbursed (disaggregated) aid and the labour market, as well as the demographic components of the latter (females and youths) in conflict-affected economies. Fixed and random effects regressions are employed to control for country specific effects. In addition, reverse causality tests are performed to account for any between disbursed aid (disaggregated) and the labour market outcomes. To account for the possibility that the effects of the explanatory variables on the labour market may take some time, lag values are used in the model, which also helps to resolve problems of simultaneity. This chapter also employs the error correction panel co-integration approach of Persyn and Westerlund (2008) to estimate the long-run relationship between foreign aid and the labour market in the focal economies. The use of this approach accounts for cross-sectional dependence by means of bootstrapping. Moreover, captures the long-run and specific short-term aspects, enhances intercept and trend parameters, as well as controlling for serially correlated error terms.

Chapter 6 examines war victims' attitudes towards the peace process in post-conflict Sierra Leone and also explores their perception of the role of foreign aid in the peace building process. To provide an analysis of factors that are closely related to the feelings of those most affected (war victims), an ordered probit approach is therefore adopted to estimate the above relationship [see Jung et al. (2012a), Torgler and Schneider (2004), Torgler et al. (2007) and Alm et al. (2005)]. Moreover, the marginal effects of the explanatory variables

on the dependent variable are estimated to reveal the probability of war victims' attitudes towards the peace process when the explanatory variable changes by one unit.

Finally, the thesis concludes with chapter 7, which contains a summary of the key findings and policy recommendations, as well as suggestions for further research avenues.

Chapter 2

Theoretical Framework and Literature Review

2.0 Introduction

This chapter examines the theoretical and empirical evidence linking foreign aid and various macroeconomic variables. In particular, the theoretical relationships between foreign aid and growth, foreign aid and foreign direct investment, foreign aid and peace and foreign aid and the labour market are examined. Gaps in the literature that this research aims to address are also identified and this is followed by the chapter summary.

2.1 Theoretical Framework

2.1.1 Foreign Aid and Growth Relationship

Prior to 1970's, studies on foreign aid were dominated by proponents of supplementary theories, which held the view that foreign aid promotes economic growth by lifting domestic savings and foreign exchange constraints. That is, foreign aid augments economic growth by supplementing domestic savings and foreign exchange in developing economies.

Such views gained motivation through the early works of Harrod-Domar and the two gap analysis of Cheney and Strout (1966). The underlying conception of the Harrod-Domar growth equation is that foreign aid is invested to achieve a target growth (g*). Therefore, a country that receives foreign aid (a) is expected to increase the growth rate to g=(s+a) k; where s=savings, k=output-capital ratio. If g* is the planned (target) growth rate of a developing economy, where output-capital ratio (k) is assumed to be constant and capital accumulation is c=s+a, then it is conceivable that a savings gap will occur. That is, the difference between s and c, which is the amount of foreign aid (a) required to attain the target growth. A savings gap arises when the amount of domestic savings in the recipient economy is less than the planned investment to achieve the target growth. Foreign aid is also conceived of as promoting economic growth by lifting foreign exchange constraints.

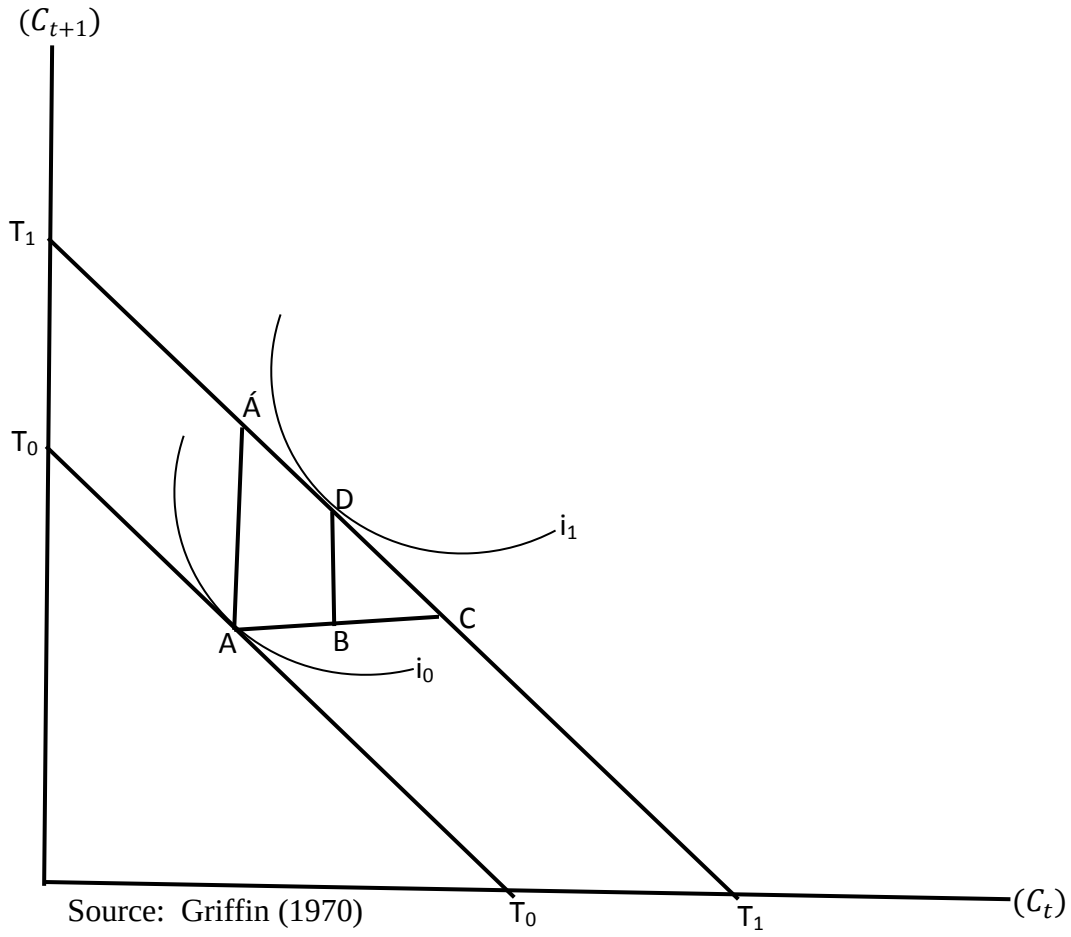
However, the role of foreign aid, being supplementary to domestic savings and foreign exchange in developing economies was challenged by Griffin (1970) and Griffin and Enos (1970). Griffin's (1970) contention was based on two strands, that is, the aid displacement and fungibility hypotheses. First, regarding the aid displacement hypothesis, the author argued that foreign aid displaces domestic savings because a greater portion of it is increasingly utilised for consumption rather than investment in developing economies. He contended that there are instances where expenditure on investment goods may exhibit adverse returns, while those expenditures specified as consumption often indicate a

positive return. In this respect, Griffin (1970) identified three channels through which foreign aid can lead to a decrease in domestic savings. (a) Increasing foreign aid can enhance a reduction in public savings due to either changes in the composition of government expenditure in favour of public consumption or changes to the tax system. (b) The provision of foreign aid can lower private domestic savings when such resources are directed towards local investors through soft loans or credits, which may lower their incentive to save. Moreover, it is likely that the provision of foreign aid will lead to the establishment of strategic own businesses by private foreign investors, which could result in direct competition with local investors and a subsequent decline in business activities undertaken by local as well as domestic savings. (c) Finally, the provision of foreign capital can lead to an increased consumption of imported goods, which would subsequently decrease domestic savings in recipient economies.

The second strand of the above argument is based on the fungibility of foreign aid hypothesis. Griffin's (1970) argued that, in most developing countries, foreign aid designated for specific investment projects is often spent by recipient countries on unproductive projects rather than the one intended by the donors or used for consumption. That is, foreign aid is not used by recipient countries to finance intended investment projects, but instead is spent on those on the margins, which are likely to be unproductive or used for consumption. Fungibility is defined as the ability of recipient governments to divert some amount of the funds designated to specific projects for their own use other than the way intended by the donor. The recipient government can spend such funds on other projects or utilised them for tax relief, which subsequently affects its efforts towards domestic revenue mobilisation. Arguably, such behaviour by a recipient government can render such funds as substitutes to domestic resources, thus leading to higher fungibility, which in turn undermines the effectiveness of foreign aid in such economies. Therefore, Griffin (1970) argued that the effectiveness of foreign assistance requires an understanding of the behaviour of recipient governments in terms of current as well as future consumption in relation to investment. This is because it is likely that some amount of foreign aid provided can be used to increase consumption regardless of the intention for which it was provided by donors (Griffin 1970). In this respect, Griffin (1970) presented a theoretical explanation to show how foreign aid can be used to increase consumption in recipient countries, which involved a simple indifference curve and a budget line to mirror the decision making (choice) of recipient countries (governments) concerning current (C_t) and future consumption(C_{t+1}). He demonstrated this by using the slope of the indifference curve to reveal the time preference of the recipient country (government),

whilst the budget line reflects the amount of foreign assistance (to be given) as well as the returns on investment.

Figure 2.1: Foreign Aid and Consumption



Source: Griffin (1970)

Assuming that T_0T_0 represents the budget line prior to the allocation of foreign aid and A the initial point of equilibrium, the provision of AC amount of foreign aid to the recipient government will enhance an outward shift of the budget line (i.e. from T_0T_0 to T_1T_1). In light of the above situation, Griffin (1970) claimed that it is unlikely for a decrease in any of the consumption levels $[(C_t)\ or\ (C_{t+1})]$ especially amidst non-inferior goods. The parallel shifting of the budget line from T_0T_0 to T_1T_1 implies that foreign aid is likely to be fungible because current (C_t) and future consumption(C_{t+1}) will be higher than the initial amount, thus leading to a new equilibrium at$D$. That is, this author argued that providing AC amount of foreign aid can cause an increase in current consumption of AB, and a subsequent decline in savings within the domestic economy. Moreover, Griffin (1970) asserted that, only a small amount of foreign aid(BC) provided to a recipient country contributes to investment, which will in turn enhance future consumption of BD.

Furthermore, it is argued that when the foreign aid provided to a recipient country is more than aggregate investment, the marginal productivity of capital and real rate of interest are likely to be adversely affected, which may subsequently cause a reduction in domestic savings [Griffin (1970)]. In this respect, the slope of the budget line T_1T_1 would decrease, and hence the likelihood for foreign aid being utilised more for current consumption rather than investment. In light of the above, the notion that foreign aid or tied aid cannot be fungible has also been challenged by Griffin (1970). According to this author, the fungibility of foreign aid funds can be very difficult to overcome, because of the behaviour of recipient countries or governments as well as the complexity of monitoring it.

Griffin and Enos (1970) also examined the effects of foreign aid on development and argued that the provision of foreign assistance is not good for development in recipient countries for the following reasons. First, it is likely to cause a decline in domestic savings as well as impeding long-run economic growth as a result of changes in the composition of investment to the detriment of these economies. Griffin and Enos (1970) contend that this is likely because most foreign assistance in developing countries is either used on unproductive activities or invested in projects with long gestation periods, that is, those that do not have an immediate impact on output. Secondly, the provision of foreign assistance can cause high dependency of recipient countries for capital, adverse exports potentials and a decline in growth rate. This is because it is likely to enhance capital-intensive techniques of investment or production, which may not be suitable for countries experiencing huge capital constraints and hence, the likelihood of high dependency for capital and importation of spare parts, which may subsequently affect foreign exchange reserves in these economies. Moreover, export earnings from primary commodities are more likely to reduce when recipient countries shift their attention to the creation of new industries. Third, there is the tendency for foreign assistance to undermine growth when tied to purchases from a specific donor country, because according to these authors, recipient countries are often not allowed to buy elsewhere. Thus, leading to buying costly equipment and plants, which benefits exporters in the donor economy, rather than the borrower. Fourth, the provision of foreign assistance geared towards private (foreign) investment can deter local investment, which subsequently affects growth in such economies. Regarding which, Griffin and Enos 1970) argue that most local investors are adversely affected because they are often overlooked in most investment agreements and find it difficult to compete with foreign investors owing to their capital outlay, level of technology, skills and experience. This undermines the development or expansion of local entrepreneurship that contributes to growth.

A fifth reason why foreign aid could impede growth is that it encourages political elites in power to side-step specific institutional reforms, as well as creating the opportunity for political leaders to stay in power for a long period, which subsequently hinders economic growth in such countries. Finally, it undermines the incentive and rewards for effective business activities among local investors due to the unfavourable prevailing conditions that limits the changes needed for economic growth.

Pack and Pack (1993) also asserted a similar view that the issue of fungibility of foreign aid is a problem in recipient countries, because it can be very difficult to monitor. The authors identified three reasons why such monitoring can be challenging. First, it is difficult because of the various sources of such aid to the recipient country and due to poor coordination. Second, simultaneous increase of domestic revenues and aid inflow can increasingly make monitoring difficult in such economies. Finally, not all aid funds provided to recipient countries are channelled through their budgets, hence making them difficult to monitor. In this respect, the authors argued that the issue of fungibility of foreign aid can have two consequences: (a) domestic savings are likely to decline when a recipient government increases current expenditure patterns or reduces taxes, which subsequently undermines the opinion of the two gap model as being supplemental to domestic savings. (b) The shifting of foreign funds to unproductive activities expenditure can cause a decline in growth in such a country.

Boone (1996), among others, also examined the foreign aid, savings and growth relationship, concluding that foreign aid does not enhance growth in developing countries, because it is often used for consumption instead of investment, which is likely to undermine growth in such economies. The World Bank (1998) claimed that for aid to lead to growth, good institutions and policy are essential, because they create room for investment and productivity growth. It also explained that countries with good institutions can lower transaction costs and also target increasingly outward-oriented policies, which implies that foreign aid can only be effective contingent on the above variables. Such conditional effects of foreign aid attracted more attention in the studies of Burnside and Dollar (1997), Burnside and Dollar (2000) and Collier and Dollar (2001).

For instance, Burnside and Dollar (2000) and Collier and Dollar (2001) investigated the relationship between aid and growth using cross-sectional data. Their results provided evidence for the need for good policies and institutions as being key for a positive relationship between aid and growth. That is, aid can enhance growth in countries where sound policies and institutions are in place.

In this respect, the authors contended that foreign aid can stimulate growth, but this depends on other variables, such as a good environment, good policies, and good governance (institutional quality) in recipient economies. Similarly, Alesina and Dollar (2000) claimed that poor bureaucracy as well as the manner in which aid is allocated is also crucial to the impact of foreign aid. Moreover, these authors discovered that close ties (i.e. bilateral relationships) are vital for aid allocation in recipient countries, for where these exist, donor countries may give larger amounts of foreign aid to recipient countries relative to others.

The above perspective has, however, been criticised by many scholars, such as Hansen and Tarp (2001), Guillaumont and Chauvet (2001), Easterly (2002) and Dalgaard et al. (2004). Easterly (2002) contended that aid broadens government bureaucracies, contributes to sustaining bad government and it can give room for corruption, as it can be used by ruling government officials to enrich themselves at the expense of poor citizens. That is, as far as Easterly (2002) is concerned, he did not consider aid as having been effective, simply because it does not appear to have fostered economic growth and reduced poverty in many developing countries.

Despite the above criticisms on the ability of foreign aid to contribute to economic growth, several researchers have continued to highlight economic intuitions on the role of foreign aid in developing countries. This is salient because developing countries are often constrained by the levels of saving, technical knowledge and foreign exchange, and that providing foreign aid could help to fill these gaps, which stimulates growth. Pankaj (2005) and Mikesell (2007) argued that there are three ways through which foreign aid can contribute to growth in these economies. First, it augments growth through the savings-planned investment gap. That is, since these economies are often constrained by low domestic savings and investment this leads to low growth rates. Moreover, if domestic savings are lower than planned investment in these economies, the growth rate will also be adversely affected. These authors have argued that this low level of savings can be augmented by foreign aid, which will subsequently enhance growth. Secondly, foreign aid promotes growth by lifting foreign exchange constraints, which arise when an economy's foreign reserves are inadequate for importing goods and services. That is, goods that cannot be manufactured locally need to be imported, but the majority of these goods cannot be so imported because of the volatility of commodity prices, which the majority of less developed countries are faced with. Therefore, it is believed that if foreign aid is utilised for the importation of goods and services that are not locally produced, this can

contribute to growth. Thirdly, foreign aid can enhance growth through capital absorptive capacity, which in developing countries is low due to inadequate human capital arising from low levels of capital resources. This is a measure of both human capital and technology constraints that affects the efficient use of domestic and foreign resources in these economies. In this respect, it is argued that the provision of foreign aid will increase output and productivity if geared towards human capacity utilisation and other skills training programmes. The above arguments are likely to hold particularly in post-conflict societies, where domestic savings and revenue mobilisation are usually very low, and therefore foreign aid is especially important.

Sachs et al. (2004) posited that limited domestic savings is one of the main causes of poor growth in developing countries and consequently such countries, especially many African ones need vast amounts of foreign aid in order to escape from this situation. They further argued that savings are essential to make up for rapid population growth as well as crucial for investment, which in turn, raises the capital stock in these economies.

Arndt et al. (2010) claimed that foreign aid is vital for enhancing economic development in poor countries, arguing that although some foreign aid may be used for consumption, it can also contribute to aggregate investment as well as long run growth. Sharma (2011) investigated the relationship between foreign aid, governance and economic development in Nepal, and claimed that weak absorptive capacity and lack of institutional reforms contributes to the ineffectiveness of foreign aid. According this author, providing aid without embarking on institutional reforms can only prolong political leaders in power at the expense of the poor and vulnerable groups.

Bahmani-Oskooee et al. (2012) also emphasised the investment-savings gap, but took a contrasting stance. That is, they argued that if investment is greater than savings, then it is likely that the gains that result from the resultant economic growth will be concentrated among investors, and not passed on to ordinary consumers (since the unallocated savings are not given the opportunity to contribute to economic growth), thus widening the income distribution gap.

Tang and Chaue (2012) contend that savings are a major source for the growth process of development in developing economies, because they are a supplier of loanable funds for domestic investment. Providing empirical evidence pertaining to the Malaysian economy, they showed that savings have a significant and positive association with growth, with the relationship being from savings to economic growth. Sharma and Bhattarrai (2013) also

examined the role of foreign aid in economic development in the case of Nepal and concluded that it can contribute to growth in the presence of sound economic policies.

In sum, and arguably, the aid-growth relationship still remain unclear and a debate among several scholars. Some of the arguments stemmed from the savings-investment gap, where emphasis is placed on the need for a substantial increase in investment. The foreign exchange constraint, which views import capacity as the main constraint on domestic investment and growth, as well as capital absorptive capacity which arises from the inadequate human capital and low levels of capital resources. In general, the provision of foreign aid could help to address the savings, foreign exchange and investment constraints and in turn, contribute to growth. It is also argued that foreign aid coupled with good institutional policies propels growth.

2.1.2 Foreign Aid and Foreign Direct Investment Relationship

There is a general belief among governments and international agencies, such as the United Nations, the IMF and the World Bank, that foreign aid and foreign direct investment are complementary sources of capital. For example, the United Nations (2002) asserts that foreign aid is central as a complement to other sources of financing for development, most especially for countries that are deficient in attracting private direct investment. They argue that creating the necessary condition to facilitate domestic and international flow of capital remains a challenge in developing countries.

By contrast Kosack and Tobin (2006) and Caselli and Feyrer (2007) contend that foreign aid and foreign direct investment are not related. Their argument is that aid is expected to support government budget and finance investments in human capital, whereas foreign direct investment is a private sector affairs which is more associated with physical capital.
To the best of my knowledge, there have been only three studies that have theorised the relationship between foreign aid and foreign direct investment, these being Beladi and Oladi (2007), Selaya and Sunesen (2012) and Herzer and Grimm (2012), which are discussed in detail in this subsection.

Beladi and Oladi (2007) use a three-sector general equilibrium model to examine whether foreign aid crowds out foreign direct investment, based on the assumption that the former is used by recipient countries to finance public consumption goods. Two traded goods and a non-traded public consumption good are included in their model. Considering a case where foreign capital is used only in the exportable sector, they claim that an increase in foreign aid used to finance public consumption good would discourage foreign direct investment if the import competing sector is more capital intensive than the public good

sector. To test the robustness of their analyses, they allow perfect substitution of foreign and domestic capital. Their analysis suggests that foreign aid would result in a substitution of domestic capital for foreign capital and a decline in the usage of the latter only if the import competing sector is more capital intensive than the exportable one and the latter is more capital intensive than the public sector.

Selaya and Sunesen (2012) examined the relationship between foreign aid and foreign direct investment by addressing the limitations identified in the study of Beladi and Oladi (2007). Selaya and Sunesen (2012) argue that the general equilibrium model set up by Beladi and Oladi (2007), where foreign aid is used to finance public goods, fails to disaggregate aid flow. Salaya and Sunesen (2012) further contended that disaggregation of aid inflow is essential because differential impacts are found when aid is disaggregated, which was not captured by the model proposed by Beladi and Oladi (2007). Consequently, Selaya and Sunesen (2012) proposed a simple theoretical model for the foreign aid and foreign direct investment relationship using different types of aid. A comprehensive derivation of their model is hereby given below, because of its relevance to the framework designed for this study. Salaya and Sunesen (2012) assume that GDP is generated by a Cobb-Douglas production function[1], which is expressed in the form:

$$g = Tk^{\alpha} \qquad (1)$$

where, g is GDP per capita, T is total factor productivity, k is stock of physical capital per capita $(\frac{K}{L})$, and α being a constant $(0 < \alpha < 1)$. It is assume that output per capita (g) grows with: (1) the accumulation of physical capital per capita k and (2) increase in total factor productivity (T). Taking from equation (1), Salaya and Sunesen (2012) assume that the stock of physical capital in developing countries is financed by domestic and external investments. In this respect, the authors use foreign direct investment as a function of disaggregated aid and other explanatory variables, where total aid $(Taid)$ is categorised into two [i.e. complementary aid (aid_C) and physical capital aid(aid_P)], such that:

$$Taid = aid_C + aid_P \qquad (2)$$

They defined complementary aid as "that geared towards social (i.e. education, health, water supply) and economic infrastructure (i.e. energy, transportation, communications), whereas aid invested in physical capital is directed towards agriculture, manufacturing, trade, banking and tourism" (pp. 2158).

[1] . Note: The theoretical relationship between foreign aid and foreign direct investment is adapted from Selaya and Sunesen (2012, pp.2166-2167).

These two types of aid are assumed to contribute to the growth process differently as follows: First, complementary aid contributes to the growth process by enhancing the amount of complementary inputs or total factor productivity (T), whilst physical capital aid contributes by helping to increase the amount of physical capital (k). In this respect, it is assumed that foreign aid geared towards complementary inputs will augment the marginal productivity of capital (MPK) (through it increasing effect on factor productivity), which is likely to attract more foreign direct investment. In the case of foreign aid invested in physical capital, the authors assume that this type of aid could have a negative association with foreign direct investment. They authors argue that a crowding-out effect is possible because this type of aid is likely to be in competition with the private investors. In this respect, aid invested in physical capital is assumed to be unlikely to enhance total factor productivity.

Although complementary aid geared towards human capital and infrastructural developments (social and economic infrastructure) could enhance marginal productivity (through it augmenting effect on factor productivity) and subsequently attracts more foreign direct investment, however, Salaya and Sunesen (2012) observe that the sign of the association between complementary aid and foreign direct investment may be difficult to predict. The authors argue that, on one hand complementary inputs will raise the marginal productivity of capital, which attracts more foreign direct investment. On the other, it can also enhance "aggregate income, which in turn increases domestic savings and domestic investment, which leads to a decline in marginal productivity and a subsequent decrease in the inflow of foreign direct investment" (pp 2156).

In order to highlight a detailed insight of the relationship between foreign aid and foreign direct investment, Salaya and Sunesen (2012) assume three sources through which investment in capital can be financed. These include foreign direct investment (fdi), investment through physical capital aid (aid_P) and domestic savings ($S = sg$,where s is savings rate). In this respect, capital accumulation in per capita terms is represented as follows:

$$k^* = sg + fdi + aid_p - (n + \delta)k \qquad (3)$$

Considering n is population growth and δ is depreciation rate, then if perfect capital mobility prevails, the real world rate of return (rr^w) will be equal to the net return to capital [i.e. marginal productivity of capital minus depreciation($MPK - \delta$)] and this is represented in the form:

$$rr^w = MPK - \delta = T\alpha k^{\alpha-1} - \delta \quad (4a)$$

$$rr^w + \delta = MPK = T\alpha k^{\alpha-1} \quad (4b)$$

In this respect, the real world rate of return (rr^w) plus depreciation rate (δ) would be equal to the gross world real rate of return $(rr) = rr^w + \delta$. Substituting $rr^w + \delta = rr$ in equation 4b gives:

$$rr = MPK = T\alpha k^{\alpha-1} \quad (4c)$$

$$rr = T\alpha k^{\alpha-1} \quad (4d)$$

$$\frac{rr}{T\alpha} = \frac{T\alpha}{T\alpha} k^{*\alpha-1} \quad (4e)$$

$$k^{*\alpha-1} = \frac{rr}{T\alpha} \quad (4f)$$

$$k^{*-(\alpha-1)} = \frac{T\alpha}{rr} \quad (4g)$$

$$k^{*1-\alpha} = \frac{T\alpha}{rr} \quad (4h)$$

And the stead state level of capital stock is represented as follows: $k^* = \left(\frac{T\alpha}{rr}\right)^{\frac{1}{1-\alpha}}$ $(4i)$

From equation (3), the relationship between foreign direct investment fdi) and physical capital aid aid_P can be represented in the form:

$$fdi = -aid_p - sg^* + (n + \delta)k^* \quad (5)$$

Note that $g^* = Tk^{*\alpha}$, n is population growth, δ is depreciation rate, $(n + \delta)k$ is capital widening (which is equal to the amount of savings needed to hold the capital-labour ratio $k = (\frac{K}{L})$ constant given population growth and depreciation). Substituting $g^* = Tk^{*\alpha}$ in equation (5) as well as differentiating with respect to physical capital aid (aid_p) gives the effect of FDI per physical capital as:

$$\frac{\partial fdi}{\partial aid_p} = -1 \quad (6)$$

The above expression implies that physical capital aid is negatively associated with foreign direct investment in developing economies. Increasing physical capital aid leads to a decline in the inflow of foreign direct investment in these economies. The authors argue that the above one to one negative association between physical aid and foreign direct investment is likely, because of capital mobility being unrestricted in these economies.

In the case of the effect of complementary aid, the authors observe that aid invested in complementary inputs has two effects and this scenario is presented in the form:

$$\frac{\partial fdi}{\partial aid_c} = -s\frac{\partial g^*}{\partial aid_c} + (n+\delta)\frac{\partial k^*}{\partial aid_c} \qquad (7)$$

Firstly, it has a positive effect on the steady state capital stock (k^*), in particular, due to its increasing influence on total factor productivity (T), thereby increasing the marginal productivity of capital and hence the likelihood for further increases in capital stock. This scenario is presented by differentiating the capital stock with respect to complementary aid (AID_C) and which gives:

$$\frac{\partial k^*}{\partial aid_c} = \frac{\partial}{\partial aid_c}\left(\frac{T\alpha}{rr}\right)^{\frac{1}{1-\alpha}}$$

$$\frac{\partial k^*}{\partial aid_c} = \frac{1}{1-\alpha}\left(\frac{T\alpha}{rr}\right)^{\frac{1}{1-\alpha}-1} * \frac{\alpha}{rr} * L$$

$$\frac{\partial k^*}{\partial aid_c} = \frac{\alpha}{1-\alpha}\left(\frac{T\alpha}{rr}\right)^{\frac{\alpha}{1-\alpha}}\frac{L}{rr} > 0 \qquad (7a)$$

Similarly, its effect on domestic savings is also observed as being positive, which is represented as follows:

$$s\frac{\partial g^*}{\partial aid_c} = s\frac{\partial (Tk^{*\alpha})}{\partial aid_c} = s\frac{\partial (T(K^*)^{\alpha})}{\partial aid_c}$$

$$= s\left[LK^{*\alpha} + T\alpha {k^*}^{\alpha-1}\frac{\partial k^*}{\partial aid_c}\right] > 0 \qquad (7b)$$

Although they expect physical capital aid to be negatively associated with foreign direct investment and complementary aid to be positively so, they found the latter to be indeterminate as can be seen in the following:

$$\frac{\partial fdi}{\partial aid} = \frac{\partial fdi}{\partial aid_p} + \frac{\partial fdi}{\partial aid_c} \qquad (8)$$

$$= -1 - s\frac{\partial g^*}{\partial aid_c} + (n+\delta)\frac{\partial k^*}{\partial aid_c} \gtrless 0 \qquad (8a)$$

$$= -1 - s\left[Lk^{*\alpha} + T\alpha {k^*}^{\alpha-1}\frac{\partial k^*}{\partial aid_c}\right] + (n+\delta\left[\frac{\alpha}{1-\alpha} * \left[\frac{T\alpha}{rr}\right]^{\frac{\alpha}{1-\alpha}} * \frac{L}{rr}\right] \gtrless 0 \qquad (8b)$$

$$= -1 - s\left[Lk^{*\alpha} + T\alpha {k^*}^{\alpha-1}\left(\frac{\alpha}{1-\alpha}\left(\frac{T\alpha}{rr}\right)^{\frac{\alpha}{1-\alpha}}\frac{L}{rr}\right] + \frac{(n+\delta)^{\alpha}}{1-\alpha}\left[\frac{T\alpha}{rr}\right]^{\frac{\alpha}{1-\alpha}}\frac{L}{rr} \gtrless 0 \qquad (8c)$$

$$= -1 - s\left[Lk^{*\alpha} + \frac{T\alpha^2 k^{*}}{1-\alpha}^{\alpha-1} \left(\frac{T\alpha}{rr}\right)^{\frac{\alpha}{1-\alpha}} \frac{L}{rr} \right] + \frac{(n+\delta)^{\alpha}}{1-\alpha} \left[\frac{T\alpha}{rr}\right]^{\frac{\alpha}{1-\alpha}} \frac{L}{rr} \gtrless 0 \qquad (8d)$$

In sum, although complementary aid geared towards human capital and infrastructural developments (social and economic infrastructure) could enhance marginal productivity (through it augmenting effect on factor productivity) and subsequently attracts more foreign direct investment, however, Salaya and Sunesen (2012) observe that the association between complementary aid and foreign direct investment has two effects hence, making it difficult to predict the sign (i.e. the sign can be indeterminate). First, the authors argue that, on one hand, complementary inputs will raise the marginal productivity of capital, which attracts more foreign direct investment. On the other hand, it can also enhance "aggregate income, which in turn increases domestic savings and domestic investment, which leads to a decline in marginal productivity and a subsequent decrease in the inflow of foreign direct investment (because of the crowding-out effect on FDI).

From the foregoing theories, two general observations can be made: first, Baladi and Oladi (2007) asserted that foreign aid impedes foreign direct investment. Second, Seleya and Sunese (2012) criticised the work of Baladi and Oladi (2007) on two grounds: (i) their work only considered aggregate foreign aid and (ii) they did not back up their theory with empirical investigations. Consequently, Seleya and Sunese (2012) addressed these shortcomings by disaggregating aid into complementary and physical capital aid, whilst also providing empirical results.

Herzer and Grimm (2012) also examined the relationship between foreign aid and private investment and argued that there are six ways through which aid can affect private investment in developing countries. First, aid promotes investment by reducing the foreign exchange constraints. The authors explained that investments in these economies depend on the availability of foreign exchange and the provision of foreign aid can lift such constraints, thereby enhancing the importation of capital goods that could lead to an increase in productivity. Second, aid can stimulate private investment when geared towards human capital investment and infrastructural development (public investment). The authors argued that if aid is invested in the aforementioned areas, it will create an enabling environment (that is complementary) for private investment and thus increase productivity. Conversely, it is argued that aid can also have a negative association with private investment, when authorities invest such aid in projects that competes with the private sector, because private investors would also want to embark on similar investment.

Third, foreign aid can stimulate investment by enhancing macroeconomic performance in developing economies. Herzer and Grimm (2012) explained that when aid is used to address political insecurity as well as improve institutional quality, it is likely to lower transaction costs and increase confidence, as well as boosting macroeconomic stability, and in this respect it is likely to attract private investors. Fourth, foreign assistance can foster private investment if used to reduce taxation, which increases private sector income and investment, due to decreased bottlenecks in these economies. Fifth, foreign aid can contribute to investment by reducing the indebtedness of these economies, thereby encouraging private investments. Finally, foreign assistance enhances private investment by strengthening financial sector developments, which, in turn, encourages investment in these economies.

However, neither of these studies considered the relationship between foreign aid and foreign direct investment in post-conflict settings, which is to be modelled for the current study. To this end, some control variables that are associated with post-conflict economies are included in the model and it also allows for examination of the relationship between disbursed aid and foreign direct investment. Moreover, it caters for investigation of the relationship between bilateral-donor aid and foreign direct investment, which is important because these are crucial sources of support for countries emerging from a long protracted conflict. In sum, they are mostly donor driven due to capital constraints, whilst at the same time wanting to attract foreign investors in order to enhance their domestic revenue base.

2.1.3 Foreign Aid, Conflict and Peace Relationship

Conflict can be seen as a situation of economic, socio and political unrest in a society, leading to loss of lives and property, destruction of infrastructure and institutions as well as displacement of the labour force. In periods of conflict, economic decisions, in terms of savings and investment, are likely to be distorted and disrupted as well as there being the likelihood of increased rent seeking and criminality in such environments. With the goal of redirecting an economy back to its pre-conflict period, donor agencies and international institutions, such as the IMF and the World Bank, give foreign assistance in the form of aid. This aid is based on humanitarian and reconstruction objectives. The former include the provision of the basic necessities of life, such as shelter to displaced people and food for those unable to fend for themselves. The reconstruction objective involves repairing and rebuilding of destroyed infrastructure. This may also include institution building efforts, such as reinforcing the legal framework for private sector development and strengthening of the judiciary [Demekas et al. (2002)].

There is a great concern whether aid actually works in conflict-affected states, or serves as an incentive for continuing rebellious activities. Grossman (1992) was one of the first researchers to consider the effect of aid on conflict. He asserted that it increases the potential for insurgency. He further argued that the purpose of rebellion is for economic gain, and that the higher the flow of aid, the higher the incentive for rebellion. Collier (2000a) examined the cost of rebellion incentives and developed a condition for financial viability. He contended that the causes of conflict are low levels of income, low growth and high dependence on the export of primary commodities.

Collier and Hoeffler (2002a) improved upon the model of Collier (2000a) by incorporating aid into their model and argued that there are three ways in which aid can affect the risk of conflict. First, aid that augments government budgets and is linked to specified government projects can reduce the risk of further hostilities. Second, aid promotes growth and thus improves the level of income in most cases, which consequently reduces the likelihood of rebellion. Third, aid changes the structure of income, whereby if there is an increase in per capita income; economies will diversify and move away from heavy reliance of primary commodity exports. These authors also highlighted the importance of robust policy as a prerequisite for aid effectiveness. That is, they argued that good or sound policy from the perspective of the donor, positively affects the growth and structure of the economy, which leads to a decline in primary commodity exports. Given this situation, this raises the issue of who is this policy good for as on the ground those in receipt of it may have a different view of its effectiveness. Collier and Dollar (2002) also asserted a similar view that aid can only produce the desired results if sound policies in the eyes of those providing it are pursued. In general, they concluded that growth is associated with good policy and the effect of aid depends not only on this, but also on higher levels of per capita income because they lower the risk of conflict. That is, since growth leads to higher levels of per capita income, this can subsequently reduce the risk of any conflict re-occurrence. Conversely, in countries with low growth and high dependency on primary commodities exports the risk of conflict is increased [ibid].

In sum, aid and policy are complementary, for in countries where there is good policy, aid will achieve the desired objectives and there will be lesser chance of conflict, with sustained peace being achieved.

2.1.4 The Relation between Foreign Aid, Labour and Conflict

In order to examine the relationship between aid, labour and conflict, there is the need to explore the possible theoretical linkages between crime and unemployment, because there is much evidence that the former is as a result of the latter. The theory on unemployment and crime can be traced back to Becker (1968), who emphasised that a high level of unemployment is the cause of crime, after establishing there is a positive relationship between the two. By contrast, Land and Felson (1976) and Cohen et al. (1980, 1981) argued that rising unemployment may reduce the opportunity for crime, thus claiming there to be a negative relationship. They explained that this is because when there is high level of unemployment, there are fewer economic goods in circulation and these are well protected, thus being harder to steal. In sum, the relationship between crime and unemployment has been difficult to pin down because of the contrasting increased motivation and decreased opportunity views.

Becker's model is based on the general theory of rational behaviour under uncertainty, which has the basic assumption "that a person commits an offense if the expected utility to him exceeds the utility he could get by using his time and other resources at other activities" [Becker (1968, pg.176)]. Ehrlich [(1973 1996)] advanced the theoretical model of Becker by introducing time, arguing that fixed leisure time can be categorised into legal and illegal activities. If the legal income opportunities are lower when compared to illegal ones, there is the tendency that crime will be on the increase. The Becker-Ehrlich model is thus referred to as the deterrence model and this has formed a basis for empirical examination of the unemployment and crime relationship.

Owing to the prevalence of conflicts in many regions of the world, attention has been shifted towards the impact of foreign aid in reducing the activities of insurgents, by providing potential recruits with gainful employment. However, there has been diverse opinion as to whether aid can resolve conflict in this way. Some argue that aid solves conflicts, whilst others are of the opinion that it increases the opportunity cost of rebellion and others argue that it is a way of bolstering local allies. Berman *et al*. (2008a) have contended that aid inflow might increase the activities of insurgents. More specifically, in their view, increasing the level of employment will reduce the ability of counterinsurgents to obtain information about the illegal activities of the rebels, thus allowing the latter to operate more freely. They further argued that military-led reconstruction programmes might increase the activities of insurgents, because their presence may provoke the local communities and people who are employed in the projects may be subject to harassment

and intimidation. Berman *et al*. (2008b, 2011) modelled insurgency as a three-way interaction. First, rebels seek for a change of power through violence. Second, the government provides infrastructure and counterinsurgency so as to reduce insurgence. Third, there is civilian readiness to give information about the activities of the insurgents to the government. They found that aid and other forms of economic assistance programmes reduce rebellious activities through the provision of public goods.

Iyengar et al. (2011) also tried to establish the relationship between aid, labour and conflict by introducing three actors in their model. First, there are individuals who choose whether to become involved in rebellious activities or not. Second, there are those who choose to rebel and also agree on the scale of violence. Third, the government who finances development projects and determines how many workers (labour) to hire. In line with the first strand of the model, Iyengar et al. (2011) argue that individuals will only involve themselves in violent activities if the gains are greater than those from engaging in the legal labour market. In this respect, the authors identified four assumptions that underpin this argument: (a) Individuals always want to maximize their utility; (b) Individuals have one unit of time to engage either in the legal or in the non-legal labour market; (c) The gains from the legal labour market are the wages paid; and (d) The gains from the illegal labour market are the monetary wages paid to those who involved less the psychological returns for engaging in rebellious activities.

The second strand of their model focuses on those who choose to rebel and who determine the scale of violence (i.e. insurgent production of violence). Iyengar et al. (2011) argue that the primary objective of rebels is to attack, and this can be soft or hard. It is a soft attack if it is targeted at the civilians and hard if it is aimed at the military. For the rebels to attack, capital and labour are required, and they are imperfectly substitutable. That is, the authors contend that if labour and capital are substitutes, aid will not reduce conflict, but if they are complementary it is more likely to do so. This is because if aid is utilised towards capital-intensive projects rather than labour-intensive ones, it will not reduce conflict because more unskilled labour will be unemployed, which will have an adverse effect on the labour market, as well as the likelihood of conflict. The final strand of their model is based on government participation in the development process. Iyengar et al. (2011) argue that there is an association between aid, labour and conflict, and that the degree of association depends on the volume of total aid. That is, the authors posit that increased total aid for reconstruction will lead to an increase in the number of projects requiring the intensive use of labour. Consequently, the number of labour intensive projects will increase and the

labour markets will be improved. If the government embarks on such labour intensive projects, aid will help reduce conflict as more people will choose to be employed because of the psychological cost involved in rebellious activities; contrariwise, if only capital-intensive projects are embarked on, aid will propel conflict.

In conclusion, understanding the aid-labour market relationship is essential as it helps to shed light on issues of violent conflict and on how such violence could be reduced. Although the notion remains contested, the provision of foreign aid for gainful employment, especially in conflict-affect economies could, contribute to an improved labour market, which, in turn, is likely to result in a decline in violent conflict in such economies.

2.2 Empirical Studies

2.2.1 Introduction

The relationship between foreign aid and economic growth, foreign direct investment and labour market outcomes represents one of the most widely debated topics among economists and policy makers in both developed and developing countries. The purpose of this section is to examine the extensive literature to such a relationship, focusing on a review of the relevant empirical studies. The majority of these studies have utilized either panel data regression or a time series econometrics approach in their estimations.

The overall results from the empirical literature with respect to the effect of foreign aid on economic growth are generally mixed. The majority of the studies have found that foreign aid has a positive association with growth, but some have argued that this is not the case. The literature on foreign aid and foreign direct investment is also inconsistent. However, the bulk of the empirical studies have found a significantly positive relationship in this direction. The effect of foreign aid on the labour market has also yielded inconclusive outcomes, but studies regarding this area have been relatively scarce. Concerning the effect of foreign aid on peace, empirical work has revealed both a direct and indirect relationship, whilst evidence on attitudes towards the peace process by victims of the conflict in Sierra Leone has not been collected.

The rest of this section is set out as follows: Subsection 2.2.2 examines the empirical evidence on foreign aid and growth, Subsection 2.2.3 is devoted to the empirical literature on foreign aid and foreign direct investment and Subsection 2.2.4 reviews the evidence on the relation between foreign aid and the labour market. Subsection 2.2.5 also considers the empirical research on foreign aid and peace in post-conflict settings and Subsection 2.2.6

examines that on attitudes towards the peace process in conflict-affected countries. Subsection 2.2.7 identifies the gaps in the literature that this research aims to address and this is followed by the chapter summary in Subsection 2.3.

2.2.2 Empirical Literature on Foreign Aid and Growth

The purpose of this section is to examine the extensive literature on the relationship between foreign aid and growth and how such a relationship has progressed over the years. For instance, the majority of the early studies utilised either ordinary least squares or cross-section estimators, but more recently panel data regression analysis has been employed in such estimations. This provides the opportunity to understand the evolution as well as the methodological issues underlying the above relationship. This section therefore highlights early contributions made right up to the most recent ones in the literature.

The First Generation (Aid, Savings and Growth): This refers to the contributions made by early scholars, which focus on the relationship between foreign aid, savings and growth. Studies in this generation assumed that foreign aid can augment growth through increases in savings and investment. Two of the early studies underlying the above growth process are the work by Harrod-Domar and the two gap analysis of Chanery and Strout (1966), which held the view that foreign aid enhances growth through savings and investment. The underlying idea of the Harrod-Domar growth model is that, savings is the binding constraint on economic growth. Savings induced by foreign aid is assumed to contribute to investment and growth, which is observed through a constant incremental capital-output ratio. This implies that foreign aid was not used for consumption. That is, the likelihood of foreign aid being consumed or invested in unproductive activities was completely overlooked in these early studies. Such a supplementary view of foreign aid on savings was challenged by Griffin (1970) and Griffin and Enos (1970) based on the displacement of savings and fungibility of foreign aid arguments. The authors contended that foreign aid displaces domestic savings because a greater portion of it is increasingly utilised for consumption rather than investment in developing economies.

To justify the above arguments, Griffin (1970) empirically examined the above relationship using cross-sectional data for 32 developing countries (over the period 1962 to 1964) and found a negative and significant association between foreign aid and savings. The foreign aid variable revealed a negative coefficient of (-0.73), which suggest that foreign aid displaces domestic savings in developing economies. To check the robustness of his result, Griffin (1970) also used a sub-sample (of which, 13 were from Asia and the Middle East) to calculate the savings function. A negative and significant association also

emerged between foreign aid and savings, with a negative coefficient of (-0.82), which is an indication of the inverse relationship between foreign aid and savings in such economies.

The Second Generation (Aid, Investment and Growth): Studies in this generation shifted from the foreign aid and savings relationship to examining the direct and indirect relationship between foreign aid, investment and growth using cross-country estimations. On the one hand, reduced form equations were employed to examine the direct relationship between foreign aid and growth, and on the other, an indirect relationship was also explored through investment. In cases, the foreign aid–investment relationship was explored using reduced form equations to unravel the investment effect of foreign aid on growth. For instance, Papanek (1973) used a cross country regression approach to assess the relationship between foreign aid, growth, savings and investment in less developed countries. In his work, he deployed cross-country regression analysis to identify the relationship by disaggregating foreign aid and including them in the right hand side of the model. Such disaggregation into foreign aid, foreign investment and other inflows, as well as savings provided a novel insight for the foreign aid literature as most prior studies had only considered aid at the aggregated level. Papanek's study used a large sample of 85 countries which is appropriate in cross country studies in order to minimise unreliable estimates, with his results suggesting aid has a positive and significant association with growth.

However, Mosley (1980) also explored the effects of foreign aid and did not find any positive and significant association between foreign aid and growth in the case of Scandinavian and Francophone countries. His work involved differentiating foreign aid given to developing Anglophone African countries and that given to Scandinavian and Francophone countries. Findings from this study indicate some relationship, especially foreign aid given by the United Kingdom to Anglophone economies in Africa was found to be positive and significant. Moreover, he also found that foreign aid works in poor economies, but not middle income ones. The relationship for those from Scandinavian and Francophone countries emerged as being negative, but insignificant. The study by Mosley (1980) was quite pioneering, in that, he made a breakthrough in terms of improving the methodological estimates obtained in similar works by previous researchers. In particular, he was able to take into account the issue of endogeneity by introducing two stage least squares regression analysis to correct for it as well as using lagged values of foreign aid.

Mosley et al. (1987) also highlighted an opposing view to aid effectiveness, when they explored foreign aid and the behaviour of the government (public sector) and the market with a sample size of 82 developing countries over the period 1960 to 1983. To investigate this relationship, they used OLS analysis and 3SLS as the estimation techniques. They found the relationship between foreign aid and growth to be insignificant and summarised that the reason for this could be that foreign aid might have not been spent for the purpose for which it was intended (i.e. spent on non-productive expenses, thus leading to fungibility) and due to the unfavorable price fluctuations which affects private investments. Furthermore, from the outcomes of their study, they concluded that the varying impact of foreign aid at the cross-country level is as a result of the behavior of the public sector on tax management in aid recipient economies. Moreover, these authors in their analysis argue that foreign aid could affect growth either directly or indirectly. For instance, a direct association between foreign aid and growth is possible through aid allocated to specific projects, while the indirect influence is through government expenditure (which leads to fungibility) and relative price changes, which in turn have an effect on private investments.

From a contrasting perspective, Levy (1988) investigated the relationship between foreign aid, investment and economic growth using cross-section and times series observations for low income countries in Sub-Saharan Africa. A sample of 28 African countries for the period 1968 to 1982 was used and the evidence from the results shows that aid has a positive and significant correlation with investment and economic growth in this region. Levy's work would appear to be robust in terms of being able to overcome the time effect in the panel data.

In Islam's (1992) work on foreign aid and economic growth in Bangladesh, annual time series data covering the period from 1972-1988 were used. In order to investigate this relationship, the author employed an OLS estimation method and the results were slightly different from other studies. That is, while aid turned out to be positively associated with economic growth, the findings also suggest that domestic resources are more useful to the growth process than other types of aid inflow in Bangladesh. For instance, while total aid did not show any significant association with growth, other categories such as loans and food aid exhibited a positive relationship. Despite this view, there are many taking an opposing stance.

Mbaku (1993) also carried out a related study on foreign aid and economic growth in Cameroon using time series data with a time span ranging from 1971 to 1990. The study incorporated an OLS and Cochrane-Orcutt estimation procedure to examine this

relationship. Foreign resources, however, were measured by foreign aid as a percentage of GDP, loans as a proportion of GDP, grants as a proportion of GDP and technical co-operation grants as a percentage of GDP. The results from this study did not show any positive and significant association between disaggregated aid and growth. Nonetheless, domestic savings as a percentage of GDP was found to be positively associated with growth in the case of Cameroon.

Boone (1996) examined the effectiveness of foreign aid on growth and investment and argued that foreign aid does not enhance growth in developing countries, because it is often used for consumption instead of investment, which is likely to undermine growth in such economies. In essence, he argued that foreign aid has no effect on growth or investment in these economies. The study employed an OLS, instrumental variable (IV) and fixed effects regressions for a sample of 96 countries from 1971 to 1990 to examine the above relationship. In addition to the above, the results from this study did not show any significant relationship between foreign aid and human development (i.e. infant mortality and primary education).

Easterly (1999) examined the financing gap investment for a target growth rate, which in itself, has been closely linked to the Harrod-Domar and the two gap model, where foreign aid is often used to fill in the financing gap as a pre-requisite for investment and growth. Such a relationship has been challenged by Easterly (1999), arguing that there is no fixed linear relationship between growth and investment and that using foreign aid to fill in the financing gap does not increase investment one to one or growth in the short-run as assumed in previous models. Easterly (1999) demonstrated this by using cross-country data for 88 aid recipient countries for the period 1965 to 1995 to examine the effect of foreign aid on investment. A positive and significant coefficient greater than or equal to one emerged only for six countries out of a total of 88. He also investigated the linear relationship between growth and investment using 138 countries and discovered that only four exhibited a positive and significant relationship between growth and investment. Easterly (1999) therefore concluded that there is no justification for assuming such a relationship between growth and investment, because the majority of the sampled countries did not exhibit it.

Moreover, Easterly (2002) contended that aid broadens government bureaucracies, contributes to sustaining bad government and it can make room for corruption, as it can be used by ruling government officials to enrich themselves at the expense of poor citizens. That is, as far as Easterly (2002) is concerned, he did not consider aid as having been

effective, simply because it does not appear to have fostered economic growth and reduced poverty in many developing countries.

At the individual country level, some studies have also revealed a positive relationship between foreign aid and growth. Lloyd et al. (2001) used a times series econometrics approach. Estimation techniques, including multivariate co-integration, autoregressive distributive lag and an error correction were employed to examine the relationship between foreign aid and growth in Ghana. Their findings indicate a positive association between foreign aid and growth in that nation. Furthermore, government investment and exports exhibit a positive relationship with private consumption (growth).

Gounder (2001) examined the relationship between foreign aid and economic growth in Fiji using total aid and disaggregated aid for the period 1968 to 1996. The study employed an autoregressive distributed lag approach to co-integration to estimate the model. The results reveal that total aid is positively associated with economic growth in the focal country. Regarding disaggregated aid (grant aid, loan aid, and technical co-operation, bilateral and multilateral aid), whilst bilateral aid, grant aid and technical assistance showed a positive association with growth, multilateral aid, loan aid and domestic resources did not.

In the same vein, Mavrotas (2002) used a similar co-integration and error correction estimation procedure to investigate the aid and growth relationship using disaggregated aid data for India for the period 1970 to 1992. His study would appear to be unique; in that he disaggregated aid in a way that was different to how this had been done previously. That is, he separated it into programme aid, project aid and technical assistance, expressing it as a percentage of GDP for his focal country, namely India. The study also included food aid and other variables to probe the relationship. The results suggest that both programme aid and project aid have a rather negative association with growth in that country. Nonetheless, technical assistance emerged as exhibiting a positive and significant relationship with growth. Moreover, in the short run, the findings suggest exports as a share of GDP have a positive and significant relationship with growth in India.

Stiglitz (2002) and Stern (2002), Sachs et al. (2004), have long subscribed to the notion that aid has been able to have a significant impact on recipient countries, arguing that it is a vital tool for poverty reduction and economic growth. Shorrocks and van der Hoeven (2005) cited in Addison et al. (2005) share these views, claiming that aid can support recipient countries in achieving the Millennium Development Goals (MDGs) on the assumption that it can foster economic growth and also contribute to lifting budget

constraints, which may in turn contribute to poverty reduction. Despite these views, there are many taking an opposing stance. M'amanja and Morrissey (2005) and Feeny (2005), among others, did not find evidence to support the view that there is positive and significant relationship between foreign aid and growth at individual country level.

M'amanja and Morrissey (2005) examined the effects of foreign aid, investment and trade on growth in Kenya using a multivariate time series VAR approach to co-integration and VECM estimation techniques for the period 1964-2002. Evidence from their results suggests a significantly negative relationship between foreign aid and growth in that country. However, the outcomes from the shares of private investment, public (government) investment and import emerged as being positively associated with per capita income in the focal economy.

Feeny (2005) used a time series autoregressive distributed lag (ARDL) approach to co-integration for the case of Papua New Guinea over the period 1965-1999 and disaggregated aid was employed to determine their relationship with growth. Whilst aggregated foreign aid (total aid), public investment and the level of governance did not turn out to exhibit any relationship with growth, disaggregated aid such as project aid and trade emerged as having a positive association in Papua New Guinea.

Loxey and Sackey (2008) investigated the relationship between foreign aid and growth using a sample of 40 Africa countries for the period 1973-2004. A pooled cross-sectional time series was employed taking into account the fixed effect in estimating the growth model. Their findings also suggest that foreign aid has a positive and significant relationship with growth in Africa. Moreover, inflation and government consumption were found to exhibit a negative relationship with growth. Furthermore, investment seems to be an important channel through which aid can influence growth as has been shown in aid and investment studies [Levy (1988)].

The Third Generation (Conditional Effects): The effectiveness of foreign aid being contingent on other variables in recipient countries has also been highlighted by some scholars. Prominent amongst such studies are Burnside and Dollar (1997), the World Bank Assessing Aid Report (1998) and Burnside and Dollar (2000). They contend that foreign aid could have a positive relationship with growth, but this depends on other variables, such as a good environment, good policies, and good governance (institutional quality) in recipient economies. The third set of studies (i.e. the third generation) made significant contributions to the extant literature, which include: (a) using a rich dataset that includes panel data, thus permitting analysis over time (within and across countries), (b) using

instruments to address the issue of endogeneity of foreign aid, (c) establishing non-linearity between foreign aid and growth by including aid squared into their model and (d) bring to the fore economic policy and institutional variables in the growth regression models.

For instance, Burnside and Dollar (1997) investigated the relationship between foreign aid, policies, and growth using a panel growth regression for 56 developing countries. They used OLS, panel and two stage least squares (2SLS), respectively, to unravel the interacting effects. Their findings suggest there is a positive association between foreign aid and growth, but that this depends on good policies, such as budget surpluses (fiscal policy), inflation (monetary policy) and trade openness (trade policy). This implies that in the midst of bad policies, foreign aid can have a negative relationship with growth. Earlier scholars, such as Knack and Keefer (1995), Keefer and Knack (1997) and Clague et al. (1999), also pointed to the vital role of institutional quality for economic growth in poor economies. Given the weight of scholarship adopting this stance, it is not particularly surprising that conditionality of aid as an incentive mechanism for certain reforms in recipient countries has become common practice.

Durbarry et al. (1998) examined the relationship between foreign aid and growth using a dataset for 68 developing countries for the period 1970 to 1993. The authors used both cross sectional and panel data regression analysis and found that increased aid inflows have a beneficial effect on growth, but this is contingent on stable macroeconomic policy environment. Durbarry et al. (1998) also argued that there is the likelihood of non-linearity between foreign aid and growth and therefore, it is helpful if such an issue is not overlooked while examining the above relationship.

Furthermore, Burnside and Dollar (2000), argued that aid in the midst of sound economic policies, adopted by recipient countries, can positively stimulate economic growth. This argument stem from findings that suggest that foreign aid has a positive relationship with growth in a sound policy environment. Another aspect of their study revealed bilateral aid as having a strong positive association with government consumption. As a result, the authors recommended that donors should seek to provide aid to countries with sound economic policies so that the positive outcome of aid can be realised. This clearly implies that aid may not produce the desired outcomes in recipient countries with weak economic policies.

A similar conclusion was also drawn by Collier and Dehn (2001), who examined aid, shocks and growth and found supporting evidence for a relationship between these after

constructing an index of export prices as a measure of export price shocks. More specifically, they included export price shocks to investigate the relationship between aid and growth by using annual data for 113 developing countries for the period 1957 to 1997. Despite finding support for Burnside and Dollar's (2000) assumption that aid stimulates growth in countries with sound economic policies, this perspective has been criticized by many scholars.

For instance, Hansen and Trap (2001) contend that aid can be positively related with economic growth in recipient countries amidst a weak policy environment, for according to them, the findings of Burnside and Dollar (2000) were too sensitive to some specification and data. The authors examined the relationship between foreign aid and growth using a cross-country sample of 56 countries for the period 1974 to 1993. Although the model of Hansen and Trap (2001) followed a similar pattern to that of Burnside and Dollar in terms the number of countries used, their estimation technique differed. Hansen and Trap (2001) not only employed OLS estimation, but also a GMM estimator. The authors discovered that the issue of decreasing returns to foreign aid can also explain the above relationship. The authors provided some useful insight by employing a GMM estimator to address various concerns (of previous studies) by taking into consideration the endogeneity of foreign aid, unobserved country effects, economic policies (openness, budget surplus, inflation), interaction terms, as well as the non-linearity of foreign aid by using foreign aid squared into their model. It is important to note that a GMM estimator, especially that proposed by Arellano and Bond (1991) can be helpful in addressing the above concerns with short panels.

Guillaumont and Chauvet (2001) argue that positive economic growth cannot be attributed only to the adoption of sound economic policies as indicated by Burnside and Dollar (2000), for it can also be due to prevailing country features, such as: climate-related factors, trade shocks, warfare, and good institutions of governance in the recipient countries. In this respect, Guillaumont and Chauvet (2001) used variables such as volatility of agricultural value added (a proxy for natural disasters) terms of trade, log of population and volatility of export earnings to construct an environmental index, which was also interacted with aid. Estimates from both OLS and 2SLS, suggest that foreign aid can also be useful even in economies with the worst economic environments.

Dalgaard and Hansen (2001) re-examined the work of Burnside and Dollar (2000), and their findings also revealed a significant variation in the estimation techniques of the least squares and instrumental variables used. Thus, they contended that the results were not

robust given the choice of instruments in dealing with the problem of endogeneity in the aid-growth relationship.

Making aid dependent on governance and policy related reforms has further been opposed, with some scholars claiming that it is ineffective [Kapur and Webb (2000)]. Knack (2001) examined aid dependence and the quality of governance using cross-country data, with the findings indicating that high levels of aid have a negative association with quality of governance, measured by: bureaucratic quality, corruption and the rule of law. Consequently, the study highlighted the need for reforms especially in the public sector in developing economies. The author concluded that foreign aid may be significant in diverse ways, in that it may be used for capacity building, such as by providing training facilities or payment of salaries in the public sector.

Further opposing the view of Burnside and Dollar (2000) are Easterly et al. (2003) who argue that the authors' model was sensitive to changes in the sample (i.e. to the additional data in the sample). The authors demonstrated this by performing a robust check with similar set of instruments as Burnside and Dollar using both OLS and 2SLS (two stage least squares) as well as expanding the dataset for developing countries and low income ones from1970-1997. Easterly et al. (2003) also included an aid-policy interaction term and found no significant association with growth in these economies.

Dalgaard et al. (2004) empirically re-examined the effects of foreign aid on growth by including both climate and good institution of governance variables. In doing so, the study employed reduced form regressions, OLS, 2SLS and GMM (both Difference and System GMM) to examining the above relationship.

Moreover, the authors highlighted the issue of endogeneity of foreign aid as well as the effect of lagged aid as instrument in the growth regressions. The authors argue that endogeneity should not be overlooked especially in cross-country studies, because both aid and growth are more likely to be jointly endogenous immediately when time-averages are used. In addition, Dalgaard et al. (2004) contended that, in as much as sound policies may be relevant, climate change and good institutions of governance also matter in understanding the effects of foreign aid on growth. Evidence from their results suggests foreign aid has been less effective in tropical regions. Nevertheless, the works of Burnside and Dollar (2000, 2004) created awareness about the importance of good policy and sound institutions for aid effectiveness, which is in line with the World Bank Report (1998) where the relevance of these conditional factors to aid effectiveness is championed.

Clemans et al. (2004) examined the short term relationship between foreign aid and growth on using panel regression. Their study sample was 67 countries and included 22 African countries for the period 1974-2001. The two stage least squares (2SLS) and the generalised method of movements (GMM) were the estimation techniques used with disaggregated aid data being employed. The results from using this data show that aid has a positive and statistically significant association with economic growth and this holds even after some robustness checks. Further results reveal a negative relationship between debt repayment and growth for other categories of aid. The use of disaggregated aid data provided more comprehensive results than were it otherwise, nevertheless the research, to some degree, overlooked the issue of long term development aid.

However, the underpinning evidence on aid effectiveness on growth as well as being dependent on institutional quality has also been supported by some scholars. Dollar and Levin (2005) also contributed to the conditional factor perspective after using instrumental variables estimation to investigate the relevance of institutional quality for aid effectiveness. Their findings revealed support for the view that for aid to be effective, the quality of the institutions in the recipient countries does matter. Baliamoune-Lutz and Mavrotas (2008) asserted a similar view, with evidence that institutional quality is a significant factor that could enhance aid effectiveness.

Karras (2006) found a positive and significant relationship between aid and growth after employing annual data from 1960 to 1997 with a sample of 71 developing recipient countries. The econometric techniques used in the study included both OLS cross-sectional regression and panel data fixed effects, with total net overseas development assistance (hereafter ODA) receipts per capita and total net ODA as a fraction of GDP being the two measures of foreign aid. The author found foreign aid to be positively associated with growth, and contended that increasing foreign aid by $20 per person in a recipient country would lead to growth in GDP per capita of approximately by 0.16 per cent. An alternative measure used for the research discovered that an increase in aid by 1 percent would increase per capita growth rate in the recipient country by between 0.14 and 0.26 percent. Despite the study data covering a substantial historical period, the use of a limited number of variables in the model was obvious.

Similarly, Feeny (2007) examined the relationship between foreign aid and economic growth in the rural sector of five Melanesian countries using an annual panel data for the period 1980 to 2001. The OLS as well as panel data of fixed and random effects approaches comprised the econometric techniques for the model estimations. The study

also involved using disaggregated aid, including aid grants and loans, bilateral and multilateral aid, and technical and non-technical assistance to determine whether these types of aid have any association with economic growth in the rural sector. The outcomes provided evidence of total aid being positively associated with growth in the focal countries. Regarding the disaggregated aid data, it emerged that aid grants, bilateral aid and technical assistance showed some evidence of a positive relationship with economic growth in these countries, whilst other forms appeared to show no evidence of this. Feeny's study was to some extent pioneering because of the disaggregation of aid into various types, but the issue of data unavailability was a challenge.

Whilst recognising the significant contributions made by the third-generation, Roodman (2007) argued that most of the results suggested by this generation are fragile to specification choices and sample expansion. This scholar empirically re-examined the aid-growth relationship of the third generation by performing various robust tests, such as using different control sets, redefining foreign aid and good policy, using different time periods, adjusting for outliers and expanding the sample. It was observed that modifying the sample can significantly affect the estimations and that the effectiveness of foreign aid is not obvious and hence, it was concluded that even though foreign aid might enhance investment and growth it is probably not a significant factor for development relative to domestic savings, governance and inequality in developing countries.

Bhattarai (2009), applied a co-integration and an error correction estimation approaches to explore the relationship between the two for Nepal over the period 1983 to 2002. His results imply that foreign aid has a positive and statistically significant association with economic growth in the long run; and it was contended that technological progress is one of the paths through which foreign aid could influence growth. Further, his work highlighted that foreign aid geared towards technical assistance that enhances adult literacy could make a considerable contribution towards strengthening the capacity of institutions in Nepal.

Busse and Gronings (2009) examined the relationship between foreign aid and governance using a large country sample of 106 countries for the period 1984 to 2004 and the dynamic panel econometrics (system-GMM) used revealed that the former has a negative association with the latter. One key limitation of the study, however, was the use of aggregated data for ODA, as various categories of aid may have a differential impact on governance.

The Fourth Generation (Aggregated Aid and Growth): The relationship between foreign aid and growth has also been examined by a set of fourth generation studies. This set of researchers argues that there is no positive and significant relationship between foreign aid (aggregated) and growth. Moreover, the approach used to address endogeneity- using weak instruments, to making causal suggestions has also being challenged by this generation of scholars.

For instance, Rajan and Subramanian (2008) investigated the relationship between foreign aid and economic growth using cross-sectional and panel data with a sample of 83 developing countries over the period 1960 to 2000. Regardless of the estimation techniques (OLS cross sectional and GMM Panel regression) used; evidence of a robust positive and significant relationship between the two variables was not forthcoming. However, their work seems to be unique among various cross-country studies on foreign aid and economic growth, for it not only incorporated disaggregation, but also applied a new methodology in that they catered for conditional relationship of foreign aid in their model. Djankov et al. (2008) also used panel data for 108 aid recipient developing countries over the period 1960 to 1999 and found that foreign aid contributes negatively to political institutions. Moreover, the authors argue that the effects of foreign aid can only be synonymous to natural resource curse.

Bun and Windmeijer (2010) examined the problem of weak instruments in a system GMM estimator for dynamic panel data models. Regarding which, they asserted that the challenge of weak instruments should not be overlooked in dynamic panel data as they can also become an issue not only in difference GMM, but in System GMM too. In this respect, these authors argued that it would be helpful to employ test statistics such as the Kleibergen test, Lagrange multiplier test and continuous updated GMM estimator (CUE), which are robust for addressing weak instruments.

In the quest to uncover the relationship between foreign aid and growth, Arndt et al. (2010) also made significant contributions by providing an improved methodology, which involved (a) developing a better instrumentation strategy (b) improving the model specification by including a full set of regional fixed effects as well as indicators for human capital and geographical situations (c) addressing the issue of selection bias through a Heckman correction as well as excluding suspect variables in the zero state instrumentation (d) employing a newly doubly robust estimator, which accounts for heterogeneity across countries (e) employing different estimators such as limited information maximum likelihood (LIML), fuller's modified LIML with alpha equal to 1

and a continuous updated GMM estimator (GMM-CUE) to determine whether similar results hold across these estimators and (f) introducing a doubly robust instrumental variable inverse probability weighted least squares (IV-IPWLS). However, the outcomes of Arndt et al. (2010) study were different to those of Rajan and Subramanian (2008). That is, the formers' suggest a positive and significant association between foreign aid and growth. Thus, they concluded that "foreign aid still remains a relevant tool for enhancing development in developing countries" [Arndt et al. (2010), pp.24)].

In a recent study, Arndt et al. (2015) also argued that, in as much as examining the effect of foreign aid on macroeconomic growth can be vital, it is also essential to investigate the contribution of foreign aid to social sectors, such as health and education. According to these authors, the inclusion of these outcomes can provide a significant insight into understanding the role of foreign aid towards growth and development. In this respect, these authors examined the effect of foreign aid using a broad range of economic outcomes for a cross-section of countries (i.e. 78 developing countries) over the period 1970 to 2007, and this, contributes to extant work in the following ways: (a) an expansion of the Arndt et al. (2010) dataset, (b) examining the long-run effect of foreign aid on growth through changes in intermediate outcomes (i.e. investment, consumption and tax) and social outcomes (i.e. health and education), (c) using separate reduced form regressions (OLS, LIML and inverse probability weighted least squares-IPWLS) to assess the effect of foreign aid on final and intermediate outcomes, (d) using aggregated aid to unravel the effect on growth, (e) examining a long-run static effect of foreign aid using averaging in some equations and finally, (f) employing sensitivity and falsification tests.
Evidence from their study, using reduced from estimates, suggest a positive association between aggregated aid and growth. Moreover, a positive and significant relationship emerged between foreign and intermediate outcomes (i.e. investment, government spending) and aid and social outcomes likewise.

2.2.3 Empirical Evidence on Foreign Aid and Foreign Direct Investment

The relation between foreign aid and foreign direct investment has also been investigated by some scholars, but their findings as with aid and growth have been mixed. Researchers, such as Selaya and Sunesen (2012), Herzer and Grimm (2012), Kimura and Todo (2010), Bhavan, Xu and Zhong (2011), Carro and Larru (2010), Harms and Lutz (2006), Blaise (2005), Karakaplan et al. (2005), among others, have all explored this empirically with some finding evidence of a positive association while others have not.

Asiedu (2002) investigated the determinants of foreign direct investment in developing countries by comparing Sub-Saharan Africa and non-Sub-Saharan countries. The author used OLS, cross-sectional and panel regression estimation techniques to determine the above for data taken from the period 1988 to 1997. The results suggest that infrastructural development and higher returns on investment have a positive association with foreign direct investment for non-Sub-Saharan countries. However, in the case of Sub-Saharan Africa, the findings for both these variables did not show any evidence. Nevertheless, the results regarding trade openness revealed a positive association with foreign direct investment for both categories of nations.

However, the marginal gain owing to this was found to be smaller for Sub-Saharan Africa. Asiedu (2002) also categorized foreign direct investment into two types: market-seeking and non-market seeking. The former pertains to that serving the local market of the host economy, which is determined by the size of the domestic demand as well as the level of income in the domestic economy. Whilst non-market seeking foreign direct investment, is geared towards selling goods out of the country (abroad) and local demand is often overlooked. That is, it involves producing goods in the host economy with the aim of selling overseas. The results indicate that there are differential impacts regarding successful policies in other regions may not be likewise in Africa. The comparative analysis between Sub-Saharan African countries and Non-Sub-Sahara ones was indeed a unique contribution, but the time span of the data was rather short and this may have had an impact on the accuracy of the estimates.

Harms and Lutz (2006) investigated whether foreign aid to developing countries can attract more private foreign investment. To this end, they explored the relationship between aid, governance and private foreign investment by using a panel data set for the period 1988 to 1999 for developing and emerging countries, which was classified in to low-income and middle-income economies. They employed various estimation techniques, including OLS (using cluster adjusted standard errors), two stage least squares (2SLS) and the generalized method of movements (GMM) to estimate the above relationship. Moreover, in their analysis they incorporated key variables, such as ODA (official development assistance and official aid) and it's disaggregates (grants, technical cooperation grant, bilateral and multilateral aid), governance indicators to control for the political and institutional environment and other instrumental variables that formed part of a robust check. Harms and Lutz (2006) argue that foreign aid may raise the productivity of private capital when undertaking public infrastructure investment. In this respect, the authors argue such a

relationship could lead to a positive "infrastructure effect" (by developing economic and social infrastructure).

In spate of the above, the authors further argue that aid could also have a negative "rent-seeking effect" especially when geared towards unproductive rent-seeking activities in the recipient country. The findings from Harms and Lutz (2006) suggest that the relationship between foreign aid and foreign direct investment is generally insignificant, but is significantly positive in economies where regulatory burdens are prevalent among private agents. The results further indicate openness and market size to have a positive and significant correlation with private foreign investment. Despite the commendable work carried out by Harms and Lutz (2006), the time span of their study was very short and this might have undermined the accuracy of their results.

From a theoretical perspective, Beladi and Oladi (2006) presented an analysis of the relationship between foreign aid and foreign direct investment by using a three good general equilibrium model with two competing tradable sectors (export and import) and a non-traded public consumption good sector for a small open recipient nation. Although their study made a unique contribution in terms of the theoretical aspect of the relationship between foreign aid and foreign direct investment, a major shortcoming was that they failed to take into account the various types of aid in their framework. Furthermore, their study lacked an empirical element to provide evidence for the proposed theoretical relationship.

Kimura and Todo (2007) empirically investigated whether foreign aid can lead to an inflow of FDI in less developed countries by using a dataset from 1995 to 2002 for each source-recipient country pair. Their study incorporated OLS estimation with standard errors adjusted for correlation within each country-pair and a system GMM to unravel the relationship. They made a significant advance in the field by differentiating the effects of aid on FDI, namely the: infrastructural effect, rent-seeking effect and the vanguard effect. However, the results of their work inferred that foreign aid, in general, has no infrastructural, rent-seeking or vanguard effect, which is in contrast to the findings by Kapfer et al. (2007) in the context of infrastructural relationship. After a robust check of their work, evidence shows that foreign aid from Japan is found to be positively associated with foreign direct investment unlike aid from other donor countries (i.e. vanguard effect). Despite their contribution to the foreign aid and foreign direct investment literature, the time span of their data was very short.

A study by Kapfer et al. (2007) also examined the relationship between foreign aid and foreign direct investment by using panel data for 52 developing countries over the period 1982 to 1995. A pooled time-series cross-section, both within and between countries across time, formed part of their approach and they also incorporated a fixed effects model. In addition, they used both total aid and sector specific disaggregated aid, including transportation aid, communication aid and energy aid, all of which constitute infrastructural aid, to determine the relationship with foreign direct investment. The authors argue that foreign aid given for infrastructural development can be effective in that it attracts foreign direct investment. The reason put forward was that aid given for the construction of a particular type of infrastructure can easily be observed and monitored by donors and hence could reduce the likelihood for any misuse. Moreover, the significance of such aid to the public could reduce the incentive for misappropriation by government authorities. Consequently, these authors posited that infrastructural aid geared towards the improvement of communication, transportation, and electricity could promote business activity in a country. Their findings did reveal that infrastructural foreign aid has a significantly positive association with foreign direct investment, while total aid did not. However, the above arguments seem contrary to the fungibility hypothesis. This is because several donors as well as some researchers have argued that substantial sums of foreign aid are not spent on development projects for which they were intended. In most cases, the aid is either spent on unproductive projects other than the targeted one or used for consumption [Griffin (1970), Heller (1975), Pack and Pack (1993) and Khilji and Zampelli (1991, 1994)].

An earlier study by Selaya and Sunesen (2008) also explored the relationship between foreign aid and foreign direct investment using a panel data set of 84 countries over the period 1970 to 2001. They introduced a panel econometric model and various estimation techniques, including pooled OLS, fixed effects, difference GMM and system GMM to determine the above relationship. In order to examine the relationship between foreign aid and foreign direct investment, they further disaggregated aid in to two broad categories. Firstly, aid invested in complementary inputs, such as social (education, health and water supply) and economic infrastructure (energy, transportation, and communication projects). The second is aid invested in physical capital such as agriculture, manufacturing, trade, banking and tourism projects. The findings of their study indicate positive association between complementary aid and foreign direct investment, while that invested in physical capital is found to be negatively associated. However the combined effect of aid invested in complementary inputs and physical capital is found to be positive associated with

foreign direct investment. Whilst domestic savings is found to be positively associated with foreign direct investment, population growth, market potential (regional dummies, urban population and rural population), market access (openness, number of vehicles, transportation network density, telephone lines and rail lines) and factor market characteristics (size of the labour force, average years of schooling), did not exhibit any such evidence. Despite the unique contributions made by disaggregating aid into complementary inputs and physical capital, other categories of aid such sectorial aid geared towards budget support were overlooked.

Salahuddin et al. (2009) also investigated the determinants of investment in 21 Muslim developing countries over the period 1970 to 2007. With this aim in mind, they used various estimation techniques, including fixed effects, two-step first difference GMM and Granger Causality. The findings indicate that lagged investment, growth rate of capita real GDP, trade openness, domestic savings, institutional development, foreign aid and private sector credit have a positive and significant association with investment, while inflation rate, human capital, lending rate and population growth do not.

Kimura and Todo (2010) also explored the relationship between foreign aid and foreign direct investment using a source-recipient country pairs gravity equation approach. The study used OLS and system GMM estimation techniques to investigate the above relationship for 98 recipient countries for the period 1990 to 2002. They elicited that, in addition to an "infrastructure effect" and "rent-seeking effect", foreign aid has a "vanguard effect" through which it affects foreign direct investment.

Their argument was that foreign aid from a specific donor country can foster foreign direct investment when the aid comes from the same country (referred to as the "vanguard effect"). Moreover, they claimed that the provision of foreign aid can facilitate the dissemination of information on business activities of the recipient country to donor firms, reduce any biased with regard to investment risks and may facilitate good business regulations, rules and other procedures that are likely to foster foreign direct investment. Furthermore, the authors argue that the effect of aid on FDI depends on the type of aid provided and hence, disaggregated aid it into infrastructural and non-infrastructural aid. Infrastructural aid is that geared towards social (education and health), economic (transport, energy and financial services) and production activities (agriculture, manufacturing, and mining industries) in the recipient economy, whilst non-infrastructural aid is that aimed at budget support and debt relief. Kimura and Todo (2010) argued that aid for infrastructure is more likely to generate an infrastructural effect, which arises when

aid geared towards social and economic infrastructural development increases the marginal productivity of capital, which in turn, attracts more FDI. In contrast, a rent seeking effect occurs when aid is geared towards unproductive activities which results in a decline in marginal productivity and hence, a negative effect on FDI. However, the findings from their study generally suggested that foreign aid has no significant association with foreign direct investment. The evidence also showed that the relationship of foreign aid for both infrastructure and non-infrastructure is insignificant. Nevertheless, foreign aid from Japan is found to be positively associated with the vanguard effect, which implies that foreign aid from a specific donor nation can foster foreign direct investment when it comes from the same nation as opposed to coming from other countries. Their study made a significant contribution in terms of differentiating aid into infrastructure and non-infrastructure and identifying the vanguard association of aid between donors. Nonetheless, a crucial short coming of their work is the unavailability of data for most pair countries on foreign direct investment and this might affect the accuracy of their estimates.

Although the above study was similar to work by Blaise (2005), which also used a case study to explore the link between Japanese foreign aid and foreign direct investment in China, the latter arrived at contradictory results to Kimura and Todo (2010). That is, whilst Blaise's (2005) findings suggested a positive association between foreign aid and infrastructural projects using a conditional logistic regression, Kimura and Todo (2010) did not find any such evidence. The study of Blaise (2005) also use provincial data from 1980-1999 in the case of China. That is, data from various regions in China was employed and the essence is to examine any regional effect that might arise in terms of the relationship between foreign aid and infrastructural projects from these regions.

Blancheton and Opara-Opimba (2010) investigated the determinants of foreign direct investment in Africa in addition to the attraction of natural resources. The study focused empirically on factors likely to have an influence on the credibility of African countries in terms of attracting more foreign direct investment. In this regard, these scholars explored whether anticipation linked to economic prospects for African countries has a positive association with the inflow of foreign direct investment. They used a sample of 28 African countries for the period 1980 to 2007 and used the Hausman-Taylor method of instrumental variable to estimate the results. The authors claim that abundance of raw materials, perceptions of new opportunities and how close countries to the developed nations are likely to attract foreign investment in Africa. They contended that economic and human competencies are often overlooked by investors especially in countries where

there is an abundance of natural resources. In terms of credibility, the authors claim that investors' yard stick depends on the country's economic abilities due to its nearness to developed countries.

Mottaleb and Kalirajan (2010) also carried out a comparative analysis by investigating the underlying factors that affect the inflow of foreign direct investment to developing countries. For their study, they used panel data from the period 2005 to 2007 for 68 developing countries from Asia, Africa and Latin America. They introduced fixed effects and random effects generalized least square estimation technique to determine the underlying factors. Their estimated results suggest that global market linkages (in terms of trade), foreign aid and a business-friendly environment are the most significant factors associated with foreign direct investment in developing countries. Further to this, they discovered that lower-middle income and Asian countries, on the whole, are highly successful at attracting foreign direct investment as compared to low-income, African and Latin American nations. Despite their contribution to the foreign direct investment literature, a shortcoming of their study is that the time span was very short and this may affect the accuracy of their results.

Selaya and Sunesen (2012) used a simple Solow type model to analyse the association between foreign aid and foreign direct investment in an open economy using a panel data set of 99 countries for the period 1970 to 2001. Their study introduced various estimation techniques, including two stage least squares (2SLS), fixed effects, difference and system generalized method of moments to unravel the relationship. From a theoretical standpoint, these authors initially in line with other work [Selaya and Sunesen (2008)] assumed that the relationship between foreign aid and foreign direct investment is somewhat unclear. They argued that while foreign aid geared towards complementary inputs, such as infrastructure and human capital, enhances marginal productivity of capital, it can also have a crowding out effect on private foreign investment when invested in physical capital. Such a distinction of types of aid is important as it helps to address aggregation bias which, as discussed above, has been a major weakness in most foreign aid studies. The results from their study suggest that foreign aid geared towards (invested in) complementary inputs (such as human capital and infrastructure) attracts foreign direct investment, while foreign aid towards physical capital is found to be negatively associated with foreign direct investment. Further to this, the combined effect of aid (i.e. aid invested in complementary inputs and in physical capital) is found to be positively associated with foreign direct investment. Their work indeed made a unique contribution in terms of the composition of

foreign aid, the different methodology introduced to address the problem of endogeneity, and it's various robust checks.

Herzer and Grimm (2012) examined the relationship between foreign aid and private investment in developing countries over the period 1970 to 1999. For their study, a panel co-integration and causality technique was used to control for issues of endogeneity and omitted variable bias. In this respect, their study employed the Larsson et al. (2001) panel test,[which has a bearing with Johansen Vector Error Correction Model (VECM) estimation technique], as well as the within-dimension panel dynamic OLS (DOLS) approach of Kao and Chiang (2000) to test for co-integration and long-run relationship between foreign aid and private investment. Their study appears to be unique, in that, apart from the total sample, they split the samples of countries into three categories namely: highly aid dependent countries (i.e. countries with foreign aid above 5 percent of GDP), moderately aid dependent countries (i.e. those that receive aid between 1 to 5 percent) and less aid dependent countries (i.e. those countries that receive aid below 0.1 percent) to examine the above relationship. Furthermore, their study used disaggregated aid such as financial aid (that is, net ODA minus technical aid and food aid), aid-financed public investment, and consumption aid to probe the relationship. The findings of their study indicate a statistically negative relationship between foreign aid and private investment. This finding was however attributed to the adverse effect of aid-financed public investment on private investment. Moreover, the authors discovered that the long-run causality between foreign aid and private investment is bidirectional, thus suggesting that more aid inflow fosters a decline of private investment on one hand, and on the other hand, increased private investment reduces aid inflow in these economies. Despite the unique contributions made, the unavailability of data to estimate the effect of the various channels through which aid affects private investment was not addressed.

2.2.4 Empirical Literature on Foreign Aid and the Labour Market

A wide range of studies have been undertaken regarding the relationship between foreign aid and other variables and the issue of the labour market is worthy of consideration especially in conflict prone or post-conflict environments. This is because if aid is tilted towards enhancing this market, it could contribute to poverty reduction as well as the consolidation of peace, security and human dignity. It importance, therefore, cannot be over-emphasized, as the issue of labour may be considered as one of the elements to the causes of violent conflicts an issue also echoed by Iyengar et al. (2011) and Collier (2000a) and (2007). Foreign aid may also have an indirect effect on labour through foreign direct

investment. However, empirical studies on the relationship between foreign aid and the labour market have been very few in numbers especially at the cross-country level.

From the perspective of post-conflict environments, labour market issues have sometimes been considered as an indirect factor to enhancing peace building. Collier (2000a) mentioned its salience as one of the motives for rebellion in some conflicts and consequently included proxies for unemployment to measure the economic motives of some conflicts. Foreign aid can also play a significant role in enhancing employment opportunities. Knack (2001) examined aid dependence and the quality of governance, contending that foreign aid may be significant in diverse ways, in that, it may be used for capacity building by providing training facilities and payment of salaries in the public sector. Rijckeghem and Weder (2001) also pointed out that by providing reasonable salaries, it is expected that this may create employment for qualified civil servants, which in turn, may decrease corruption and there by maximize revenue for governments.

As mentioned inter alia, empirical studies in the above area are scanty in number and most of the few earlier studies only raised the significance of labour market, providing no empirical evidence. For instance, a work by Wood (2003) highlighted the significance of the labour market in El Salvador. In the same vein, Nafziger and Auvinen (2003) also posited that employment opportunities have been a major factor contributing to political crises in some African countries. An ILO study by Date-Bah (2003) highlighted its importance, with the author contending that providing job opportunities in post-conflict societies can be essential for socioeconomic recovery, sustainable peace building and hope for those affected.

To my knowledge, Iyengar et al. (2011) is one of the very few studies that has theoretically and empirical investigated the above relationship. For their work, they used a simple labour supply and violence production model to identify the economic factors that are related with reconstruction spending (aid) and insurgent violence within Iraq. As part of their empirical investigation, they introduced OLS and an instrumental variable estimation technique to evaluate the relationship between labour-generating reconstruction aid and the occurrence of violence by insurgents for the period 2004 to 2008. The authors contend that employment growth could decrease violence during periods of civil conflict. The evidence show that reconstruction aid geared towards labour intensive projects leads to a decrease in violence. More specifically, the findings at the district level reveal that a 10 per cent increase in labour related aid leads to a 15-20 per cent decline of insurgent violence. While at country level, the authors discovered that a 10 percent increase in reconstruction

aid leads to a 10 percent decline in civilian attacks. Although the work of Iyengar et al. (2011) provided useful insights in terms of the theoretical framework and the relevance of labour-intensive reconstruction aid on violence in Iraq and the short term perspectives of the above relationship. However, a shortcoming of their study is that the long term dynamic effect of the above relationship was overlooked, and this may be essential for a conflict prone country.

In sum, apart from Iyengar et al. (2011), none of the above researchers made an attempt to examine empirically foreign aid and labour market outcomes, in particular, regarding countries emerging from conflict. Most of their work only emphasized on the importance of labour market with no empirical evidence.

2.2.5 Empirical Literature on Foreign Aid and Peace

The vast body of literature on the effects of foreign aid has largely being focused on growth as evidenced by this study. Arguably, the role of foreign aid has been diverse, but one main concern of the international donors has been providing aid for peace building as has been found in most conflict prone countries. In this regard, scholars, such as Collier and Hoeffler (2002b and 2004), Damekas et al. (2002), Kang and Meernik (2004), Ree and Nillesen (2009) and Nielsen et al. (2011) have attempted to highlight the role of foreign aid in post-conflict situations.

Collier and Hoeffler (2000, 2002 and 2004) were among the early researchers that conducted empirical analysis on aid, policy and growth in countries emerging from conflict. They used 27 post-conflict countries in their data set and found aid to be positively associated with growth. In addition, they incorporated various policies in order to determine which one is more important in the post-conflict environment. Although sectoral and macroeconomic policies were found to be useful, their findings indicate that social policies are most important in the aftermath of conflict. Other scholars have also highlighted the indirect role of foreign aid in civil war situations and have argued that it can indirectly reduce the possibility of civil war. For instance, Collier and Hoeffler (2000) analyzed the effect of foreign aid and policy on the risk of civil war. Although, their results did not show any direct association with risk of civil war, they argued that aid can have an indirect relationship with risk of civil war through its association with growth, and dependence on raw commodity exports. It can also have an influence through a rise in government military capacity. However, the authors argue that such a military expenditure can sometime lead to fungibility [Collier and Hoeffler (2007)]. Fungibility refers to a situation whereby foreign aid provided by a donor for designated purpose, is being used or

spent by a recipient country on other projects not intended (which might be unproductive) or used for consumption.

Ree and Nillesen (2009) also examined the effect of foreign aid using a linear probability model (LPM) approach to investigate the probability of the risk of civil conflict in Sub-Sahara Africa. The results did not show any significant relationship between foreign aid and the likelihood of civil conflict occurrence; and that aid can contribute to the decline of war duration. They ascribe this being possible if the state arguments its military expenditure, which will subsequently enhance government's capability to counter any rebellious activities. Whilst the above studies reveal an indirect relationship with aid regarding the risk of civil war, a work by Nielsen et al. (2010), found a direct relationship between changes of foreign aid and the likelihood of armed conflict.

2.2.6 Empirical Studies on Attitudes towards the Peace Process

This subsection examines the empirical literature on attitudes towards the peace process in conflict-affected countries. Individuals' attitudes towards peace have been collected and analysed by various scholars from the peace and conflict literature using opinion survey data. Several studies have focused on attitudes towards peace among students, youths, according to gender, refugees and the public and they have all made significant contributions to the literature.

However, the empirical analyses on factors associated with individuals' (war victims) attitudes towards peace still require further examination. Regarding this, Dutter et al. (1979) used survey data to examine the attitudes of Israeli youths towards the Middle East conflict. The evidence from their study indicated that there is a positive correlation between socioeconomic status and political attitudes among this cohort. Gwartney-Gibbs and Lach (1991) used multivariate regression analysis to explore the gender differences in attitudes towards nuclear war and discovered that women are significantly more pessimistic than men.

Similarly, Wilcox et al. (1996) explored the gender gap in attitudes towards the Gulf War from a cross-national perspective, using both multivariate and bivariate regression analyses and found a statistically significant difference between women and men in terms of their attitudes towards the war. That is, women in the most developed and developing cities (Tokyo, Moscow and Mexico City) are less supportive of military action than men. Mi Ari (1999) also employed multivariate regression analysis to examine attitudes of Palestinian students towards cultural normalization with Israel and discovered that support for this is significantly associated with social class or parental occupation. More specifically, his

findings suggest that students from the working class are more supportive of cooperation with Israelis than those from other classes.

Hermann et al. (2002) examined Israeli-Jewish attitudes towards the Oslo Peace Process using multivariate regression analyses and discovered that those with higher levels of education, of older age and women are more positively associated with this process. Nachtwey et al. (2002) evaluated the degree to which economic orientation explains attitudes towards peace among Palestinians and Israelis after the 1993 Oslo Accord using a public opinion survey. Employing a multiple regression estimation technique, their findings inferred that there is a positive correlation between improved economic conditions and attitudes towards peace.

Furthermore, Georgiades (2007) used public opinion telephone survey data of 150 randomly selected Greek-Cypriots citizens. Using multiple regression analyses, the results indicated that 45 percent of Greek-Cypriots held the view that they could peacefully co-exist with Turkish Cypriots. However, this researcher also found that, on average, 43 percent of the former ethnic group were not prepared to be reunited with the latter. Moreover, being elderly, highly educated and/or a refugee was found to be positively associated with the likelihood of peaceful co-existence with Turkish-Cypriots.

Bellow and Miguel (2009) used household survey data to examine war and local collective action in Sierra Leone. The findings from their study indicate that households who directly experienced violent conflict are more likely to perform collective actions, such as attending community meetings, joining political parties and voting at elections. Similarly, Vinck and Pham (2009) used cross-sectional survey data to examine displaced persons' intentions to move back to their place of origin and their attitudes towards former combatants in Northern Uganda. Their study drew on data from 1,404 displaced persons interviewed from four districts (Amuru, Gulu, Kitgum and Pader) in Northern Uganda, who were randomly chosen by employing multi-stage sampling methods. In a bid to examine the relationship, they employed multivariate regression, finding that social services (access to water and land) and job opportunities at the current place of living were associated with the decisions to move among internally displaced persons (IDP). Furthermore, these scholars elicited that although over two-thirds of IDP were comfortable with former combatants, this was not the case in situations that required direct interactions with these people.

Hazlett (2012) examined the effect of exposure to direct violence on attitudes towards the probability of peace among 1,872 Darfurian refugees living in 12 camps in Eastern Chad, using a random-sample survey. He employed stratified random sampling, as well as

geographical location, which represents camp and block of refugees to determine the above relationship. OLS regression and matching analyses were used and it was found that those refugees exposed to direct violence are 10 percentage more likely to live in peace with former enemies and members of other tribes, as well as less likely to put government soldiers to death, when compared to their counterparts. This may seem counter intuitive as it could be expected that the revenge motive of people affected by violence will heighten the chance of violent conflict reoccurring. However, it could be the case that those who have suffered are more aware of the horrors of conflict and hence, prefer to avoid its return more than those who have not being subject to it.

2.2.7 Identifiable gaps in the Literature

Despite the significant contributions made so far in the literature by various scholars, most of these studies have not been without some weaknesses. Common among them are inappropriate proxies, limited control variables, the problem of aggregation bias, methodological constraints, the problem of unresolved endogeneity, the short time span of data, amongst others. It is vital to note that such weaknesses may generate misleading results and hence wrong interpretations too.

Further to the above weaknesses, the empirical evidence of the relationship between foreign aid and foreign direct investment has been inconclusive with mixed results and a clear observation from the literature is that most studies on the former focused on economic growth, and the scope of the studies have also to a great extent been focused on peaceful developing countries. Recent research has focused on conflict-affected countries, such as the works of Addison (2000), Collier and Hoeffler (2002, 2004), Damekas et al. (2002), Kang and Meernik (2004). However none of these scholars explored the relationship between disaggregated aid and foreign direct investment in conflict-affected environments despite the extensive allocation of foreign aid to some of these countries. In fact, foreign aid and foreign direct investment are important international sources for countries emerging from conflict and both can play a crucial role in the accumulation of human and physical capital as well as in the enhancement of economic development in these economies. An examination of this relationship is important and therefore remains a gap to be filled in this thesis.

A further gap in the literature has been the relationship between foreign aid (disaggregated) and the labour market in conflict-affected environments. Despite the vast interest in the former, there has been little or no study, to the best of my knowledge, examining foreign aid and labour market outcomes at the cross-country level in this context. The research by

Iyengar et al. (2011) only focused on the individual country level using the case of Iraq. An examination of the relationship between foreign aid (disaggregated) and labour market outcomes in conflict-affected environments therefore remains a necessary gap to be filled by this study.

Furthermore, several studies, such as Hazlett (2012), Vinck and Pham (2009), Bellow and Miguel (2009), Georgiades (2007), Barak (2005), Hermann et al. (2002), Nachtwey et al. (2002), Collier and Hoeffler (2000, 2002), Mi Ari (1999), Wilcox et al. (1996), Gwartney-Gibbs et al. (1991) and Dutter et al. (1976), have all made significant contributions on individuals' attitudes towards the peace process using survey data. In addition, studies on foreign aid and peace or on the risk of conflict have been conducted, and these include Collier and Hoeffler (2000), Ree and Nillesen (2009), and Nielsen et al. (2010). Nevertheless, a significant gap in the literature has been on attitudes towards the peace process among war victims and their perception of the role of foreign aid in the peace building process.

In light of the aforementioned gaps, my aim in this thesis is to contribute to the extant knowledge as follows. First, to examine the relationship between disaggregated aid and foreign direct investment in conflict-affected countries using panel regression analysis, instrumental variable and error correction panel co-integration approach of Persyn and Westerlund (2008) to examine the long-run relationship between multilateral (disbursed) aid and foreign direct investment in these economies. Second, to examine the relationship between disaggregated aid and the labour market, as well as demographic components of the latter (females and youths) in conflict-affected economies using fixed and random effects models, reverse causality tests and error correction panel co-integration approach to examine the long-run relationship between foreign aid and employment rate in these economies. Finally, this thesis also contributes to the literature by using a case study to provide an analysis of war victims' (war wounded and war widows) attitudes towards the peace building process in post-conflict Sierra Leone, using a weighted ordered probit approach. A case study in this area is very important, because since the onset and outset of the civil war in Sierra Leone, the country has been donor driven with a lot of foreign assistance geared towards the promotion of peace and yet there has been no study to the best of my knowledge that has examined this relationship. The outcomes of this study will also be useful because knowing what influences war victims' attitudes towards peace is crucial for mitigating the potential risk of conflict reoccurrence and thus ensuing sustainable peace building and development.

2.3 Chapter Summary

This chapter has examined the theoretical relationship between foreign aid and growth, foreign aid and foreign direct investment, foreign aid and peace and foreign aid and the labour market. It has also reviewed the empirical literature on foreign aid and growth, foreign aid and foreign direct investment, foreign aid and labour market outcomes as well as peace attitudes in conflict-affected settings. Moreover, the relevant gaps in the literature have been identified. In the empirical literature, investigation into the relationship between foreign aid and these variables has produced mixed and inconclusive results, which can be explained by the choice of methodological approaches employed, different time frames used, inappropriate proxies, limited control variables, problems of unresolved endogeneity, and the problem of aggregation bias. Despite the significant contributions in this literature, none of these studies has explored the relationship between foreign aid and foreign direct investment and labour market outcomes in conflict-affected countries, as well as providing an analysis of war victims' attitudes towards the peace building process in the case of Sierra Leone.

Chapter 3

Post-Conflict Economies: Concepts and Attributes

3.0 Introduction

This chapter presents a detailed understanding of post-conflict economies and the concept that guides this research as a means of establishing a working definition of these concepts throughout the study. The chapter is set out as follows: Section 3.1 contains the definitions underpinning the main concepts pertaining to such economies and Section 3.2 presents some attributes of post-conflict economies, whilst Section 3.3 presents some concluding remarks.

3.1 Definitions of Concepts related to Post-Conflict Economies

Post-Conflict Aid

There is no universal definition for post-conflict aid that integrates all elements of what entails, even though several have been brought forward by scholars in this field of study. Weiss (2004) defined post-conflict aid as special development assistance given to countries emerging from conflict with the aim of addressing the challenges faced. This assistance includes: the rehabilitation of infrastructure, rebuilding of institutions, support for public service delivery and humanitarian assistance, which may all contribute to economic growth (ibid). This definition brings out the key elements associated with economic reconstruction and recovery that are needed to be addressed in post conflict situations.

Similarly, Demekas et al. (2002) have described post-conflict aid as humanitarian and reconstruction assistance given to countries emerging from violent conflict with the aim of providing shelter, delivering health and education services, ensuring minimum levels of consumption, repairing or rebuilding damaged infrastructural facilities such as roads, water and sanitation, energy and communication services as well as restoring security, law and order. This definition, to a large extent, covers the key areas of focus of post-conflict aid. This definition is closely related to the Organization for Economic Co-operation and Development's (OECD) view on the aim of aid, which it believes should be geared towards the promotion of economic development through its effect on economic growth and welfare of citizens within the recipient countries. However, for the purpose of a working definition, post-conflict aid is special development assistance provided by external donors to conflict-affected countries or those emerging from conflict with the objective of addressing the conflict or post-conflict situation, as well as promoting economic development that contributes to the welfare of citizens in these economies.

Such assistance could be rendered to those developing countries in conflict, as well as those that are in and out of conflict or those emerging out of it.

Fragile States

The concept of fragile states has evolved over the past few years and has become a new concept in the discourse of international development. In this regard, several schools of thought have put forward definitions that help to describe the concept; however there is no universally accepted definition. Stewart and Brown (2010), in their work on fragile states, have argued that the concept is problematic as donor countries have failed to reach a consensus regarding what constitutes such a state. The Department for International Development (DFID) in its report on Global Issues: Fragile States (2010), described them as "countries where the government cannot or will not deliver its basic functions to the majority of its people, including the poor" [DFID (2010) and Stewart and Brown (2010 pp. 8)]. This definition is in line with the initial description already given by DFID in another report: Eliminating World Poverty: Building Our Common Future (2009), which states that fragile states are not only limited to those countries emerging from violent conflict or experiencing an ongoing conflict, but it can also refer to countries with a stable political environment where the government is not able to provide basic essential services for the citizens, uphold the rule of law or deliver good governance within the country.

Similarly, the OECD - DAC in its report: Principles for Good International Engagement in Fragile States and Situations (2007), shares the same view as DFID on the concept of fragile states, but goes beyond the notion of the inability of the government to meet the needs and protect its citizens. That is, to this organisation a fragile state is one "when state structures lack political will and/or capacity to provide the basic functions needed for poverty reduction, development and to safeguard the security and human rights of their populations" [OECD-DAC 2007 and cited in Stewart and Brown (2010 pp.9)]. In addition, the definition of fragile was further expanded to include wider aspects of society. In this regard, Canada's Country Indicators for Foreign Policy (CIFP) (2006) holds to the need for political legitimacy to be included in the definition of fragile states, arguing that they are "those states that lack the functional authority to provide basic security within their borders, the institutional capacity to provide basic social needs for their populations, and/or the political legitimacy to effectively represent their citizens at home or abroad" [CIFP (2006)].

From a different perspective, the United States Agency for International Development (USAID) in its report: Fragile States Strategy (2005) considers fragile states at two levels. The first refers to a vulnerable state which is "unable or unwilling to adequately ensure the provision of security and basic services to significant portions of their populations and where the legitimacy of the government is in question", whilst the second is termed a state in crisis, where the "central government does not exert effective control over its own territory or is unable or unwilling to ensure the provision of vital services to significant parts of its territory, where legitimacy of the government is weak or non-existent, and where violent conflict is a reality or a great risk"[USAID (2005 pp.1) and cited in Stewart and Brown (2010 pp.9)].

The World Bank also added a voice to the definition of the concept in its report Fragile and Conflict-affected Countries: Definitions of Fragility and Conflict (2009) referring to them as "countries facing particularly severe development challenges: weak institutional capacity, poor governance, and political instability and frequently ongoing violence or legacy effects of past severe conflict" [World Bank (2009) and cited in Stewart and Brown (2010 pp. 9)]. A critical review of these definitions reveals some common themes that run through them, such as the inability of the government to meet the needs of citizens, poor governance, weak institutional capacity, political legitimacy, insecurity and abuse of democratic principles. From the above analysis, there is no clear indication of what constitutes a universal definition of fragile states; however, those given above taken as a whole shed some light on the key elements that such states possess. It is important to note that fragile states under these definitions are not necessarily states that have gone through a period of war or are experiencing an ongoing war, but whatever their situation in terms of peace, they all have the potential for violent conflict or political upheaval, if their circumstances are not addressed.

However, given the purpose of this research, a working definition of fragile states is limited to those countries in violent conflict or those emerging from the adverse effects of violent conflict or political upheaval. A fragile state can move from its present position of being at risk of some form of calamity to a more stable position, provided the state authorities are willing to practice and put into effect certain measures.

Peace Building

Peace building is a process that has received much attention on the international development agenda for countries emerging from a period of violent conflict and/or political upheaval in recent times. In fact, it is becoming closely integrated into academic

and policy circles to the extent that international development actors, such as the United Nations (UN), have given much attention to the promotion of a peace building agenda. The significance of this concept cannot be over emphasized and this is clearly indicated in the definition put forward by the UN, cited in the work of Haider (2010 pp.4) on: State building and peace building in situation of conflict and fragility. In which peace building has been defined by the UN as "a process that involves a range of measures targeted to reduce the risk of lapsing or relapsing into conflict, to strengthen national capacities at all levels for conflict management, and to lay the foundations for sustainable peace and development". This definition, according to the UN, indicates the need for a "peace building process to design strategies that must be coherent and tailored to the specific needs of the country concerned, based on national ownership, and should comprise a carefully prioritized, sequenced, and therefore relatively narrow set of activities aimed at achieving the above objectives"[cited in Haider (2010 pp.4)].

The UN Document 1995: Agenda for peace sees it as "sustained co-operative work to deal with underlying economic, social, cultural and humanitarian problems involving the process of disarming, restoring weapons, repatriating refugees, capacity building, training of security forces, monitoring elections, advancing the protection of human rights, reforming institutions and promoting participation"[UN (1995)]. Further to this, Maiese (2005) regarded the concept as a period of post violence peace work with grassroots citizens, while others have seen it as means of bridging the gap between disputing groups that are involved in the conflict process ranging from the very early stages of the violent conflict through escalation, stalemate, settlement and reconciliation. The UN document (1995): Agenda for Peace, presents a clear descriptive definition of the concept describing it as wide range of activities that are associated with capacity building, reconciliation and societal transformation. In addition to the above, Maiese (2005) in her article on peace building indicates that it is a long process that occurs after violent conflict, being a period of the peace process that takes place after peacemaking and peacekeeping. Regarding this, other scholars interested in the field of peace building are of the view that it often takes place at the same time as other peace processes.

As indicated by Haider (2010), a country emerging from violent conflict or political upheaval is always faced with the huge task of promoting a peace building agenda as a means of creating the conditions necessary for the non-occurrence of violent. It involves a long term agenda that is focused on early recovery from violent conflict, stabilization and reconciliation.

Countries pursuing such an agenda must work towards promoting sound and effective governance programmes, socioeconomic recovery, social renewal, inclusiveness in the day to day running of the country and the participation of state and non-state actors. Many scholars, such as Collier and Hoeffler (2004a and 2008), are of the firm belief that countries emerging from violent conflict and/or political upheaval have a tendency of slipping back into conflict, if the root causes of it are not adequately addressed. In view of this, a peace building process can be seen as a vital element through which these countries address the root causes of conflict by pursuing programmes that have the potential for promoting stability and reconciliation as well as political and social inclusiveness. In support of this stance, Maiese (2005) mentioned several elements may need to be addressed if there is to be a successful peace process, including: early warning and response effort, violence prevention, advocacy work, military intervention or peacekeeping, humanitarian assistance, ceasefire agreements and/or the establishment of peace zones.

It is generally agreed that the central focus of a peace building agenda should be to facilitate a positive peace that will ensure stable social equilibrium in which the surfacing of new disputes does not escalate into violence and war. In the light of this perspective, Haugerudbraate (1998) has argued that the peace building process is a vital tool that is aimed at fixing the core problems that underline the conflict and change the patterns of interaction of partners involved. Furthermore, it is an integral part of a post-conflict recovery agenda as it seeks to reduce the effect of war related hostility through the repairing and transforming of battered relationships and building up the aspects of reconciliation, forgiveness, trust building as well as developing a future positive image for the nation as a whole. A well-structured and implemented peace building process involving such endeavours can bring stability and development to countries emerging from violent conflict and/or political upheaval.

In spite of the significant contribution a peace building agenda can bring to countries in transition after conflict, it is notable that there are no universally approved methods by which a peace building agenda should be pursued. The United National Peace building Commission has stressed the need for the process to be tailored in such a way that it fits within the context of the country pursuing sustained peace. Although there is no general agreement on the ways in which such an agenda should be pursued, it is important to identify the key elements that should not be left out of the process. Here, some of these elements are presented in order to shed light on the concept of peace building particularly

with regards to countries emerging from civil war or political upheaval. It is commonly argued that the process should involve: reintegration and rehabilitation of ex-combatants and victims, institutional or sectoral reforms, promotion of a good governance agenda, security reforms, institutional capacity building, mass rehabilitation and the provision of social infrastructure and services as well as reconciliation and healing processes at all levels of society. Goodhand (2002) defined peace building as the "Local or structure efforts that foster or support those social, political and institutional structures and processes which strengthen the prospects for peaceful co-existence and decrease the likelihood of the outbreak, occurrence or continuation of violence" [Goodhand (2002 pp.839)], which is considered the most appropriate perspective for situating the current research.

Post-Conflict

The concept post-conflict has been described by several schools of thought as a period of recuperation, peace building and reconstruction following the aftermath of violent conflict or political upheaval. In other words, countries in this condition can be described as states emerging from a long-protracted violent conflict or political upheaval over a period of time. Naturally, the negative impact of conflict is not only felt whilst it is ongoing, but exists well into the post-conflict phase. Such countries often face enormous challenges which if left unaddressed can make them vulnerable to the risk of further conflict. In fact, often in conflict prone countries, hostilities may reoccur after a short period of peace, while others may experience ongoing violence even when war has subsided.

According to the United Nations Development Programme (UNDP) (2008), post-conflict countries are "those emerging from a protracted long violent conflict classified according to their progress along a continuum of a range of peace building milestone. They may relapse into conflict, but as long as they do not slip back on too many of the milestones at once, they can be expected to continue towards recovery". [UNDP (2008 pp5)]. These milestones according to the UNDP (2008) include: "cessation of hostilities and violence; signing of peace agreements; inception of demobilisation, disarmament and reintegration; return of refugees and internally displaced persons (IDPs), establishment of the foundations for a functioning state; initiation of reconciliation and societal integration; and the start of economic recovery" [UNDP (2008 pp.5)].

Nevertheless, the UNDP (2008) report emphasised aspects about these milestones in such economies . First, there could be a reoccurrence of hostilities in such countries and hence, the milestones process is not just one-way, with it potentially going back and forth.

Secondly, activities and interventions that enhances peace building can be pursed at any time (during and after conflict) and finally, there is no fixed sequential order needed in terms of achieving these milestones. In addition, Boyce and Forman (2010) have referred to a post-conflict state as "a country classified that exhibits a formal peace at some point in time during the period. Where formal peace is defined as the period up to 10 years after the signing of a peace accord and as long as violent conflict does not reoccur; while on the other hand, a negative peace is is the period up to 10 years after battle-deaths fall below 1,000 per year, regardless of a peace accord being singned or not as long as violent conflict does not reoccur". [Boyce and Forman (2010 pp. 8)]. Furthermore, Mason et al. (2011) have described post-conflict transition as a "situation where a portracted long violent conflict has subsided to a degree to which foreign assistance is both possible and sustainable" [Mason et al (2011)]. A critique of this definition is that it only considers foreign aid in the aftermath of conflict and that inflow should not only be limited to post-conflict settings, for it is also possible for aid to be delivered even during periods of conflict. In essence, post-conflict states are conflict-affected countries, either still in conflict or out of it, but experiencing a recovery and economic reconstruction process. In this respect, post-conflict countries and conflict-affected ones are therefore used interchangeably in this thesis.

3.2 Some Attributes of Post-Conflict Economies

A post-conflict environment exhibits several attributes that can be used to describe such a country. According to a USAID report (2009) and the World Bank (1999), these economies are identified as having some unique features, which are as follows.

Fragile Peace and High sense of Risk: One proximate feature of post-conflict countries is the prevalence of a fragile peace at the outset of a violent conflict. In most cases, post conflict countries exhibit fragility in the consolidation of peace and reconciliation due to several factors. These factors among others include an ongoing rivalry of interests and differences among former war lords [World Bank (1999)]. Furthermore, the large number of various arms and the presence of land mines as well as other weapons as a legacy of the conflict can still be felt even in the aftermath, which may serve as a recipe for uncontrolled criminality and instability that could undermine the peace and stability of the country. In addition, it has been argued that post-conflict environments are most often faced with special challenges, such as economic recovery and the risk of further conflict [Collier and Hoeffler (2008)]. One study has determined that the risk of conflict re-occurrence can be as

high as 39% in the first year after the outset of conflict and 32% in the subsequent five years [Collier and Hoeffler (2004a)].

High Expectation of a Quick Peace Dividend: One feature common to post-conflict countries is the high public expectation of a quick peace dividend in the aftermath of a peace accord. That is, the effort and attention of the international committee to salvage the situation in such nations often gives rise to impatience among various groups, communities and even those in the diaspora for a sustained recovery to be achieved. When an immediate peace dividend is unforthcoming, expectation can turn to disappointment, leading to resentment, loss of confidence and trust in government and their institutions, which can result in renewed conflict.

Windows of Opportunity: In a bid to address the root causes of the conflict and the need to create a sustainable peaceful environment where the principles of democracy, rule of law and socioeconomic development can thrive, various actors at the international and national levels are often willing to assist countries emerging from violent conflict. In today's global world, the level of atrocities and their effects in the aftermath invariably attract international attention and subsequent support, of a financial, technical and/or advisory nature, aimed at steering a nation's government and her people towards reintegration, recovery, rehabilitation and development. Thus, a window of opportunity is created through which the post-conflict country is able benefit from development and humanitarian aid. However, the degree of international assistance to such countries depends on several factors, such as the level of humanitarian suffering, the country's relationship with the international community, the level of interest of potential donors, the type of regime and human rights record. In sum, all of these factors play a significant role in determining the level of assistance the international donor community will offer countries emerging from violent conflict.

High sense of Trauma: Violent conflicts that result in the destruction of lives, property and displacement, lead to a high sense of trauma among the population in the post-conflict setting. Traumatic events, such as direct exposure to combat, lack of shelter, ill-health with little access to medical treatment and death of family members, are common experiences among the surviving population, which creates room for post-traumatic stress amongst victims [Modvig et al. (2000)]. The outset of conflict, therefore, does not necessarily mean a quick return to normal life as the psychological effects of the war continue unabated in the minds of victims and these are hard to overcome. For example, a survey conducted on the trauma of war in Freetown, the capital of Sierra Leone, showed that the majority of the

population was exposed to various traumatic experiences [Jong et al. (2000)]. In addition, those who have breadwinners may be constrained by the problem of having to single handedly take care of the home, which may further exacerbate their state of mind. Moreover, the mere existence of perpetrators of human right abuses roaming across towns and villages without being prosecuted or showing remorse can trigger traumatic memories in the minds of victims.

***Highs sense of Social Capital Loss*:** Conflict usually erodes the bonds of trust and social networks at the community-level that have developed over the years. Such erosion of social capital gives rise to a high level of personal and social insecurity among large numbers of returning refugees, internally displaced persons and integrated combatants. Subsequent rebuilding of trust and moral values may take decades. This social decay as a result of a breakdown in trust and other social values creates further difficulties for post-conflict recovery and any reconstruction agenda.

A Marked Increase in Vulnerability: Countries emerging from violent conflict most likely will face increased levels of vulnerability, particularly in the case of female headed households, where the man of the family has been killed as a result of a violent conflict. In some families, the main breadwinner will be too injured either physically or psychologically to work. Such situations mean that the women have to become the breadwinners of the household with the role of ensuring basic household needs are met. Regarding this, based on a survey conducted on Torture and Trauma in Post-Conflict East Timor, 14% of the women were reported as being single mothers with the sole responsibility of taking care of the family due to the death of their husbands [Modvig et al. (2000)].

Slow Economic Progress: During the aftermath of conflict its negative impact on the economy hinders any rapid economic recovery. In particular, most often the outbreak of the conflict affects the country's existing productive activities that once served as a source of revenue for the country. As a result, countries in transition away from conflict find it difficult to surmount the economic constraints in terms of revenue generation that will speed up recovery. Hence, there is a tendency for a slow economic growth over a long period of time in post-conflict societies.

Destruction of Infrastructure: The outbreak of conflict sometimes results in the destruction of both private and public infrastructure facilities, which were used to provide basic socioeconomic services to citizens. Essential services, such as education, health facilities, electricity, water supply and/or telecommunications are adversely affected and

may even cease to be provided as a result of the damage inflicted during the conflict. In view of this, the government and the private sector are faced with the daunting task of bringing these services back into functional working order. This requires substantial investment on the part of these stakeholders, which is often not readily available in significantly large amounts to restore all these services and the limited provision or the complete lack of it leads to many citizens expressing their dissatisfaction during the transition period.

Acute Shortage of Human Capital: Countries emerging from conflict may experience an acute shortage of human resources, owing to a brain drain and skilled labour shortage, brought about by the hostilities. That is, during such crises it is the wealthy and more highly skilled who are able to afford to leave a war torn country and when fighting ceases they may not return until they feel it is truly safe again. For instance, during the Uganda War, it has been estimated that half of the country's doctors and pharmacists left the country [Cole et al. (1985)]. People with lesser skills also often cross borders in mass exodus in search of safety, security and/or employment elsewhere and may not choose to return or if they do, they do so only when they feel that peace has been fully restored. Finally, not only does the outbreak of conflict lead to deaths from the fighting, both military and civilian, but also the spread of infectious diseases, which also has a negative effect on human capital.

3.3 Chapter Summary

In this chapter definitions relating to post-conflict societies, including post-conflict aid, fragile states, peace building, and post-conflict states have been discussed. Moreover, a range of peace building milestones that need to be reached if post-conflict peace building is to be successful has been put forward. Finally, several attributes common to post-conflict nations, including experiencing fragile peace and a high sense of risk, high expectation of a quick peace dividend, windows of opportunity, social capital loss, vulnerability, acute shortage of human capital, and trauma, have been advanced as key challenges that these countries face when embarking on a peacemaking agenda.

Chapter 4

4.0 The Effects of Post-Conflict Aid on Foreign Direct Investment-An Empirical Investigation

4.1 Introduction

The relationship between foreign aid and foreign direct investment in developing countries has created a renewed interest among researchers, in particular, due to the high level of aid inflow into countries during and after conflict. In most developing countries, foreign aid and foreign direct investment are very crucial factors. Both play a significant role in the accumulation of human and physical capital as well as in the enhancement of economic growth and development in recipient countries.

Several researchers, including Selaya and Sunesen (2012), Herzer and Grimm (2012), Kimura and Todo (2010), Bhavan, Xu and Zhong (2011), Carro and Larru (2010), Harms and Lutz (2006), Blaise (2005), Karakaplan et al (2005), Kapfer et al (2007) and Asiedu (2002), among others, have empirically examined the above relationship. Notwithstanding these investigations, Selaya and Sunesen (2012) argue that the relationship between foreign aid and foreign direct investment in developing countries is unclear. The authors [Selaya and Sunesen (2012)] claim that foreign aid invested in human capital (education and health) and public infrastructure-can serve as a complementary input that attracts more foreign direct investment, but it may also serve as a substitute to (or have a crowding-out effect on) foreign direct investment when invested in physical capital in recipient countries.

Kimura and Todo (2010) assert that foreign aid can also lead to a "vanguard effect" that affects foreign direct investment. They are of the strong notion that foreign aid from a designated donor country can foster foreign direct investment when the aid comes from the same country (hence a vanguard effect) and in their study identified three channels through which the vanguard effect could promote foreign direct investment. Firstly, the provision of foreign aid can provide information on the business activities of the recipient country to donor firms. Secondly, it can reduce the perception of donor firms with regard to investment risks. Finally, it can facilitate good business regulations and other practices from the donor country to the recipient country. Alternatively, it can give preferential treatment to donor firms.

Kapfer et al.'s (2007) view is that foreign aid given for infrastructural development (transportation, communication and energy) could promote business activity and also attract foreign direct investment in recipient countries.

Moreover, these scholars argue that aid especially that targeted towards construction of a particular infrastructure is unlikely to be misused as it can easily be monitored by donors and the perception of it being of high relevance to the public reduces the incentive for misappropriation by government authorities. Proponents of the fungibility hypothesis disagree with the aforementioned argument. This is because several donors as well as some researchers have contended that substantial sums of foreign aid have not been spent on development projects for which they were intended. In most cases, the aid was either spent on unproductive projects other than the targeted one [Griffin (1970), Heller (1975), Pack and Pack (1993) and Khilji and Zampelli (1991, 1994)].

Karakaplan et al. (2005) hold a different view, arguing that the provision of foreign aid is not a sufficient condition to attract foreign direct investment and therefore has no direct relationship with foreign direct investment. They are of the opinion that foreign aid can only attract foreign direct investment where good governance is in place and where financial markets are well-developed. Kosack and Tobin (2006) echo a similar view of foreign aid and foreign direct investment having no relationship, arguing that foreign aid is more focused on financing government budgets and human capital investment, while foreign direct investment is oriented towards the private sector which is more associated with physical capital.

In spite of the significant contributions made so far by various scholars, none of these studies, to the best of this researcher's knowledge, has examined the effects of foreign aid on FDI in post-conflict settings. The justification for focusing on this is that most countries emerging from protracted long civil wars have also attracted substantial sums of foreign aid [Boyce & Forman (2010)]. The question here that remains unclear and strongly debated issue in the literature is does foreign aid attract foreign direct investment in conflict-affected countries? An examination of this question is the focus of this chapter.

The current study differs from the existing literature on foreign aid and foreign direct investment in five main ways: Firstly, the relationship between foreign aid and foreign direct investment is examined for conflict-affected economies. Secondly, the study compares the effect of complementary aid, physical capital aid and other control variables in post-conflict settings with other peaceful developing countries. Thirdly, the relationship between disbursed aid (multilateral aid, grants, technical assistance and bilateral aid) and foreign direct investment in conflict-affected economies is investigated. Fourthly, the relationship between bilateral-donor aid (such as UK-aid, US-aid, French-aid, Spanish-aid, Portuguese-aid, German-aid, European Union aid and the World Bank) and foreign direct

investment in conflict-affected economies is probed. Finally, the study also contributes to the literature by examining the long-run relationship between multilateral disbursed aid and foreign direct investment in the conflict-affected context using an error correction based panel co-integration approach.

In view of the above, the objective of this chapter is to investigate the relationship between disaggregated aid and foreign direct investment in post-conflict economies. Several studies on post-conflict settings have focused on aid, policy and growth [Collier and Hoeffler (2002b, 2004)]; aid and conflict [Addison (2000)]; humanitarian and reconstruction aid [Damekas et al. (2002)]; and the determinants of post-conflict economic assistance [Kang and Meernik (2004)]. However, none of these studies has explored the effects of disaggregated aid on FDI in post-conflict environments. To fill in this gap, this research investigates which of the various categories of foreign aid affects foreign direct investment in post-conflict environments using panel regression analysis, the instrumental variable technique and an error correction based panel co-integration approach.

This chapter is set out as follows: Section4.2 presents the methodology and variables used in the model. Section 4.3 explains the estimation techniques employed, whilst section 4.4 presents the results of fixed effect, random effect and instrumental variable analyses on the effects of commitment aid (i.e. complementary aid and physical capital aid) on foreign direct investment in post-conflict environments. In Section 4.5, the estimated results for the relationship between disbursed aid (i.e. multilateral aid, grant, technical assistance and bilateral aid) and foreign direct investment in post-conflict environments are given. Section 4.6 presents the estimated results on bilateral-donor aid, whilst section 4.7 presents those on the long-run relationship between multilateral aid disbursed and foreign direct investment using an error correction based panel co-integration approach, which is followed by Section 4.8 that contains the concluding remarks.

4.2 Methodology and Variable Description

This section describes the methodology used to examine the relationship between foreign aid and foreign direct investment in post-conflict environments. A series of quantitative techniques are employed, which include cross-country panel data regression analysis and instrumental variable to investigate the relationship between foreign aid and foreign direct investment in these economies [where data is available]. This chapter also examines the above relationship for peaceful developing countries.

The major reason for the use of panel data regression analysis is that it possesses several advantages as compared to conventional cross-sectional or time-series data sets [see Hsiao

(2007)]. Firstly, panel data possess more degrees of freedom and sample variability which enhances more consistent estimates. Secondly, it makes possible the control for omitted (missing) variables or unobserved heterogeneity. Thirdly, it can also be useful in dealing with some dynamics and finally, it helps in reducing any problems of collinearity [see Hsiao (2007)].

4.2.1 Definition of Variables and Data Sources

The data set on foreign aid and foreign direct investment is obtained from various sources, including the Organisation for Economic Co-operation and Development (OECD), International Country Risk Guide (ICRG) and the World Bank Development Indicator (WDI). It consists of two sample groups: 24 post conflict countries (according to the UNDP 2008 classification) and 66 developing countries, with annual data covering the period 1970-2010. There are a few missing values for some observations. The selection criteria for these countries were based on the gross domestic product per capita in constant 2005 US dollars and the years of coverage are determined by the availability of data on key variables. The list of the post-conflict countries includes: Angola, Sierra Leone, Burundi, Liberia, Chad, Côte d'Ivoire, Mozambique, El Salvador, Ethiopia, Rwanda, Georgia, Guatemala, Guinea-Bissau, Indonesia, Namibia, Nepal, Nicaragua, Papua New Guinea, Sri Lanka, Sudan, Tajikistan, the Democratic Republic of Congo, Congo Republic and Uganda.

Table 4.1. displays the data definitions and sources.

Table 4. 1: Data Definitions and Sources

Data Definitions and Sources		
Variable	Definition	Source
Foreign Direct Investment	Net inflow of FDI expressed as a percentage of GDP	WDI April 2012
Complementary Aid	Aid towards social infrastructure (health, education and water) and economic infrastructure (transportation, energy and communication sectors) expressed as a percentage of GDP.	OECD-CRS, and Selaya & Sunesen (2012)
Physical Capital Aid	Aid towards construction, agriculture, trade, tourism and banking expressed as a percentage of GDP.	OECD-CRS, and Selaya & Sunesen (2012)
Total Net ODA	Official Development Assistance disbursed to developing countries expressed as a percentage of GDP.	OECD database
Techinacal Aid	Assistance given to increase the human capital (education, training and advice) or productive capacity of recipient countries, espressed as a percentage of GDP.	OECD database
Trade Openness	The sum of exports and imports expressed as a percenatge of GDP.	WDI April2012.

Conflict	The average of internal (i.e. civil disorder, civil war/coups, and political violence) and external conflict (i.ewar,cross-border conflicts and foreign pressure). The score of each component ranges from 0-12, where a higher number implies very low risk of conflict occurrance and lower number means very high risk of conflict re-occurrance.	ICRG
Population Growth	The growth rate of the population (ie expressed as a percentage).	WDI April 2012
Inflation Rate	The annual percentage change in consumer prices.	WDI April 2012
Multilateral Aid	Assistance from OECD Development Assistance Committee (DAC) donors and other multilateral agencies (such as the world bank and other regional development banks) to recipient countries expressed as a percentage of GDP.	OECD-DAC dtabase
Grant	The value of funds available for disbursement which requires no repayment by the recipient country, expressed as a percentage of GDP.	OECD database.
Bilateral-Donor Aid	The sum of assistance given by DAC donor countries and other agencies on bilateral basis (such as UK-aid, French-aid, Spanish-aid, Portuguse-aid, German-aid, European Union aid and the World Bank) expressed as a percentage of GDP.	OECD-DAC dtabase
Bilateral Aid	Total Net ODA disbursed minus multilateral aid (as % of GDP).	

4.2.2 Model Specification

The model specified in this study follows the work of Selaya and Sunesen (2012) and the assumption is that GDP is generated by a function that can be expressed in the form:

$$g = Tf(k, h, l) \quad (1)$$

where, k is the stock of physical capital, T is total factor productivity, h is human capital and l is labour. With this analogy, Selaya and Sunesen (2012) argued that the total flow of foreign aid can affect human capital(h) through education and health, and physical capital(k) through investment. Following this analogy, it is further assumed that in an open economy, aid invested in complementary inputs will enhance marginal productivity through its effect on factors of production. Details of this analogy are presented in the theoretical framework in chapter 2.

From the foregoing theories presented in chapter 2, two conclusions can be made; first, Baladi and Oladi (2007) assert that foreign aid impedes foreign direct investment. Second, Seleya and Sunesen (2012) criticised the work of Baladi and Oladi (2007) based on two

grounds: (i) their work only used aggregate foreign aid and (ii) their work was not back up with empirical investigations.

Consequently, they disaggregated aid into complementary and physical capital aid and provide empirical investigations. It can be observed from the aforementioned that these studies do not consider the effect of aid on foreign direct investment in conflict-affected settings and this is now modelled in this study. Specifically, some control variables that are associated with post-conflict environments are included (such as conflict, primary commodity exports and inflation) and also the effects of disbursed aid on foreign direct investment, as well as the effect of bilateral-donor aid on foreign direct investment are examined. This is important because both foreign aid and foreign direct investment are crucial resources for countries emerging from a long protracted conflict. On the one hand, they are mostly donor driven due to capital constraints, and on the other hand, they also want to attract foreign investors in order to enhance their domestic revenue base.

Closely linked with the above, the relationship between foreign aid and foreign direct investment (FDI) in post-conflict environments can thus be represented as follows:

$$FDI = f(AID, X) \tag{2}$$

where, FDI is the net inflow of foreign direct investment as a percentage ofGDP, AID is foreign aid as a percentage of GDP, and X represents all other factors that determine foreign direct investment. In a panel setting, the aid-foreign direct investment relationship may be presented as follows:

$$FDI_{it} = \alpha + \beta AID_{it} + \theta X_{it} + \eta_i + \varepsilon_{it} \tag{3}$$

where, FDI_{it} is foreign direct investment as a share of GDP in country i at time t, AID_{it} is the level of foreign aid inflow as a percentage of GDP into country i at time t, X_{it} is a set of control variables, η_i represents the unobserved country-specific effect and ε_{it} is the error term. In a more explicit form, equation 3 can be presented as follows:

$$FDI_{it} = \alpha + \beta_1 Caid_{it} + \beta_2 Paid_{it} + \beta_3 Caid_{it}^2 + \beta_4 TO_{it} + \beta_5 POP_{it} + \beta_6 INF_{it} + \beta_7 PCE_{it} + \beta_8 CONF_{it} + \eta_i + \varepsilon_{it} \tag{4}$$

where, FDI_{it} is foreign direct investment as a share of GDP, i denotes country and t denotes time. $Caid_{it}$ is the level of complementary aid inflow as a percentage of GDP, $Paid_{it}$ is physical capital aid expressed as a percentage of GDP, $Caid_{it}^2$ is complementary aid squared expressed as a percentage of GDP, TO_{it} is trade openness expressed as a

percentage of GDP, POP_{it} is the growth rate of population, INF_{it} is the inflation rate, PCE_{it} is the level of primary commodity export as a share of GDP, $CONF_{it}$ denotes conflict, η_i represents the unobserved country-specific effect and ε_{it} is the error term. The study includes complementary aid squared in equation (4) because, complementary aid is likely to have two counterbalancing effects on foreign direct investment and hence, its ultimate effect will hinge on its current level. That is, on the one hand, complementary aid can raise the marginal productivity of capital, which attracts more foreign direct investment, and on the other, it can enhance aggregate income, which in turn increases domestic income and domestic investment, thus leading to a decline in marginal productivity and a subsequent decrease in the inflow of foreign direct investment. Physical capital aid squared is not incorporated in the above equation because aid invested in physical capital crowds-out FDI separately at its own level. Moreover, this aid equalizes the marginal productivity of capital across countries on the assumption of unrestricted capital mobility. Seleya and Sunesen (2012) also advanced a similar justification for the inclusion of complementary aid squared and not physical capital aid squared in their model.

In the equation (4) above, the coefficient representing trade openness (TO), which measures the sum of exports and imports as a share of GDP, is expected to be positive. That is, it is expected that the higher the trade openness of a country the higher would be the level of foreign direct investment [see Salahuddin et al. (2009), Harms and Lutz (2006), Asiedu (2002) and Addison and Heshmati (2003)]. The coefficient of the variable representing complementary aid (Caid) is expected to be positive. It is defined as aid given towards social and economic infrastructure expressed as a percentage of total aid. More specifically, social infrastructure comprises aid towards health, education and water, while economic infrastructure includes aid toward transportation, energy and the communication sectors [OECD CRS Database April (2012) and Selaya and Sunesen (2012)]. Some scholars, such as Selaya and Sunesen (2012) and Kapfer et al. (20007) have argued that complementary aid has a positive effect on foreign direct investment when invested in human capital (education and health) and infrastructural development.

In post-conflict situations, such aid, are expected to have a positive effect. This is because a large portion of foreign aid in most developing countries emerging from conflict situations is normally geared towards restoration of peace and stability by building the necessary social (i.e. health, education and water) and economic (e.g.energy, transportation/roads and communication) infrastructure.

This type of financing is sometimes effected through government budget support, which in turn is used to support education and health related programmes as well as the reconstruction of infrastructure. Investment in social and economic infrastructure through foreign aid has the advantage of exposing the recipient country and the increased likelihood of foreign direct investment. On the other hand, complementary aid can have a negative association with foreign direct investment due to the level of corruption and mismanagement, which can be serious in aid recipient countries, if measures to prevent these are not put in place. That is, the prevalence of corrupt practices amongst government officials in such environments may thwart the positive effect of foreign aid on foreign direct investment.

With regards to physical capital aid, it is difficult to make a prediction about the relationship with foreign direct investment. This is defined as aid towards construction, agriculture, trade, tourism and banking expressed as a percentage of total aid. It is positive if post-conflict aid is directed towards rehabilitation and reconstruction of war affected areas (e.g. construction), encouraging private sector development through the implementation of appropriate policy reforms (e.g. trade policies), development of the financial sector (e.g. banking), and supporting rural development programmes. All these will help to create a conducive environment, which can foster foreign direct investment, provided it is well managed.

Inflation is measured as the annual percentage changes in consumer prices, which could be regarded as a sign of macroeconomic problems in an economy and its coefficient is expected to be negative. That is, a higher inflation rate may have a negative association with the decision to invest in a country. For instance, high rates of inflation in the domestic economy may adversely affect the level of output through increases in the cost of resource inputs, both human and material. Secondly, a high rate of inflation reduces returns from capital investment due to the fact that the real rate of interest declines with inflation. This therefore has the effect of reducing private sector investment, and thus, the potential for a decline in economic growth.

Primary commodity exports are expressed as a percentage of GDP. Regarding which, the abundance of natural resounces and other primary exports may serve as a source of attraction for foreign direct investment in an economy, hence it is expected to have a positive effect. However, if such natural resources are not properly managed, it could also serve as source for conflict re-occurrence, which may have an adverse effect on foreign direct investment.

Collier et al. 2003 identified four ways through which the dependence on primary commodity could cause further conflict: "(i) if primary commodity is used to finance rebellion (ii) increases corruption in governance (iii) increases the incentives for secession (iv) increases exposure to shocks" [Collier et al. (2003)].

Conflict is the average of internal (civil disorder, civil war/coups, and political violence) and external (war,cross-border conflicts and foreign pressure) conflict. The score of each component ranges from 0-12, where a higher number implies very low risk of conflict occurrance and a lower number means a very high risk of it (see Table 1 for a definition and sources). Conflict, depending on its magnitude, can have a devastating effect on business activities in an economy as it can scare away potential investors. Moreover, rivalry among various stakeholders in a post-conflict enrionment may increase the potential for a reoccurrence of violence, which may hamper normal business activities.

4.3 Estimation Techniques

4.3.1 Fixed Effects and Random Effects

This section presents the estimation techniques employed to capture the effects of foreign aid on foreign direct investment using data for developing countries and those emerging from conflict. In this regard, cross-country panel data regression analysis (fixed effects and random effects) and instrumental variable techniques are employed to investigate the effects of foreign aid on foreign direct investment in post-conflict environments. Equation (4) forms the basis for estimating the above relationship. As indicated in equations (3) and (4), if the unobserved country-specific effects, η_i are uncorrelated with the explanatory variables of the model (i.e. if η_i is orthogonal to all the explanatory variables), then the pooled OLS estimator can be applied to fit the model. However, when there is a strong correlation between the unobserved individual component η_i and the regressors' of the model, the pooled OLS estimator is biased and inefficient. In this situation, the fixed effects model is suitable for carrying out estimations of the model's parameters. In addition, if the standard random effects assumptions hold, but the model does not actually contain an unobserved effect, the pooled OLS is efficient and all the associated pooled OLS statistics are asymptotically valid. To test for the absence of an unobserved effect, a simple AR (1) test for serial correlation is employed. This test is appropriate because the idiosyncratic errors are serially uncorrelated under the null $H_0 : \sigma_\eta^2 = 0$, given that the explanatory variables are exogenous. The detection of serial correlation amongst the idiosyncratic errors thus validates the presence of an unobserved effect.

In many applications, however, the advantage of using panel data is to allow for the unobserved effects, η_i to be arbitrarily correlated with the set of explanatory variables, thus necessitating the application of a fixed effects estimation procedure. In this study, the choice between the fixed effects and random effects model for the levels estimation is based on the Hausman specification test.

4.3.2 Instrumental Variable Technique

In order to correct for the problem of endogeneity which is often associated with foreign aid, an instrumental variable technique is employed. The instrumental variable estimators of the model parameters are obtained through two stages least square (2SLS) process. This approach (IV) can be very helpful in remedying simultaneity bias, omitted-variable bias and measurement error.

As a starting point, OLS is used to estimate the above equation (4). However, the assumption of a zero-conditional mean can be violated in the presence of endogeneity, omitted-variable bias and measurement error in the regressors [Baum 2006]. The OLS coefficients are biased and inconsistent if one or more of the explanatory variables is endogenous. A variable (X_i) in equation (2) can be endogenous if it correlates with the error term, which implies cov $(X_i, e) \neq 0$. By contrast, the variable (X_i) in equation (2) is exogenous if cov $(X_i, e) = 0$ and the OLS is consistent only if cov $(X_i, e) = 0$. When the regressor is correlated with the error term it violates the zero-conditional mean assumption. However, this problem can be resolved through the use of an instrumental variable (IV) estimator. The relationship is therefore estimated using an IV technique by experimenting with different instruments. In order to determine the validity of these instruments, tests for instruments relevance, exogeneity and endogeneity of the explanatory variables are carried out.

Instrument relevance requires testing for weak instruments, which are those that do not have strong correlation with the endogenous regressor(s) and hence, can lead to a biased instrumental variable estimator. To this end, an F-test of the joint significance of the instruments in the first stage regression is carried out. The relevant test statistics relates to the explanatory power of the excluded instrument(s) in the regression. If the F-test outcome is greater than 10, then it can be concluded that the instrument is not weak (i.e. it has passed the rule of thumb threshold of F-statistics greater than 10) [Hill et al. (2012)].
Further specification tests are conducted, including one for instrument exogeneity. That is, the Hansen-Sargen test for "over identifying restrictions" is used to check for instrument exogeneity under the null hypothesis: all the instruments are valid.

The test requires a chi-squared distribution with the degrees of freedom being equal to the number of surplus instruments (over identifying restrictions). If the null hypothesis is rejected, it implies that one or more of the instruments are not exogenous. In the case of the disbursement decisions of bilateral-donor aid, the instrumentation strategy of Rajan et al. (2008) and Arndt et al. (2010) is followed. The decision for the disbursement of bilateral-donor aid may be motivated by many factors. Rajan et al. (2008) suggest noneconomic factors, such as historic and influence aspects, as the likely rationale for the disbursement of aid. More specifically, they argue that historic relationships (proxied by share of official common language, whether a recipient was ever a colony of the donor and whether it is currently a colony of the donor) between a donor and a recipient country can enhance the likelihood for more aid inflow. They also point out the influence factor (measured by the size of the donor's population relative to that of the recipient and the interaction between the colonial ties and the donor-recipient population ratio) of the donor relative to the recipient. Thus, the decision for the disbursement of bilateral-donor aid by a donor (d) to a recipient country(r) can be presented in the form:

$$\frac{AID_{dr}}{POP_r} = \beta_0 + \beta_1 CCOL_{dr} + \beta_2(COML_{dr} \times ECOL_{dr}) + \beta_3 Log\left(\frac{POP_d}{POP_r}\right) + \beta_4 ECOL_{dr} \times Log\left(\frac{POP_d}{POP_r}\right) + \varepsilon_{dr} \quad (5)$$

where Aid_{dr} is bilateral-donor aid disbursed by donor (d) to recipient country (r) at a specific period of time t, POP_r is the population of the recipient country, CCOL is a dummy with a value of 1 if the recipient country is currently a colony of the donor, COML is a dummy with a value of 1 if the recipient country shares the same official language with the donor interacted with ECOL, which is a dummy that takes the value 1 if the recipient was ever a colony of the donor, Log (POP_d / POP_r) is the ratio of the log of the populations of the donor and that of the recipient country and $ECOL_{dr} \times Log(POP_d / POP_r)$ - is the dummy of ever a colony interaction with the ratio of the log of population of donor relative to the recipient country. Using the bilateral-donor aid allocation decision, the predicted aid ratio is estimated and this is aggregated across donors to present a fitted value, which is then used as an excluded instrument. Further alternative estimators, such as Limited Information Maximum Likelihood (LIML) and Fuller's modified LIML (with alpha=1), are also employed in order to improve on the choice of the instrumental variable estimator in the study.

In line with the above allocation decision and instrumentation strategy, the study also examines the recipient characteristics. The rationale for providing aid to recipient countries may not be unconnected with the need to help them to meet their debt obligations, reduce the infant mortality rate, improve the literacy rate and the population effect (small countries are expected to get more aid per capita). Debt is the ratio to exports and it is an indication of a countries inability to pay its debt (heavily indebted countries). Adult literacy rate (ratio of secondary school enrolment) and infant mortality rate are measures that also contribute to human capital and welfare in post-conflict environments. They are part of the millennium development goals (MGDs) and hence, countries with high infant mortality rates and low literacy rates will most likely receive more aid. In this respect, debt, infant mortality rate, adult literacy rate and the log of the recipient population were all experimented for instrument validity. Thus, various instruments from the donor and recipient perspectives are experimented through the Hansen-Sargen tests.

4.4 Empirical Results

4.4.1 Commitment Aid and Foreign Direct Investment

This section sets out the results of the fixed effects, random effects and instrumental variable analyses on the effects of commitment aid (complementary aid and physical capital aid) on foreign direct investment in post-conflict environments. Table 4. 2 presents the summary statistics of the dependent and explanatory variables used in the estimation for post-conflict countries, while Table 4.3 presents the fixed effects regressions followed by the random effects estimates. More specifically, Table 4.3 contains four specifications on the relationship between commitment aid and foreign direct investment in these countries. Specifications 1-3 are the fixed effects, while specification 4 is the random effects. The use of fixed effects enables the control for unobserved country effects, while employing the random effects allows for the use of further time-invariant control variables. In terms of specification, as can be seen, a Hausman test between columns 3 and 4 suggests that the fixed effects estimates are not biased-see Table 4. 3. In the case of the LM test, the estimates indicate the presence of individual effects and hence, the random effects model is preferred to ordinary least squares (OLS).

Based on the fixed effects regressions in Table 4.3 above, the estimates associated with physical capital aid are positive and statistically significant and indicate that a 1 per cent increase in physical capital aid will lead to approximately 6.3 to 11.1 per cent increase in foreign direct investment. This result is consistent with previous studies by Bhavan et al. (2011), where physical capital aid was found to serve as a complementary factor

(crowding-in effect) to foreign direct investment in the case of South Asian economies, but differs with that of Saleya and Sunesen (2012), where a negative and significant coefficient was found. Moreover, the magnitudes of the estimated coefficients are larger relative to those in peaceful developing countries in Table 4.4, thus suggesting that physical capital aid has a large effect on foreign direct investment in post-conflict environments.

The coefficient on complementary aid is negative and significant at the 5% and 10% levels. This is in contrast to the expected sign and the findings of Saleya and Sunesen (2012) and Bhavan et al. (2011) where a high inflow of complementary aid was found to attract foreign direct investment. This negative outcome is surprising, because aid geared towards social (education, health and water) and economic infrastructure (energy, transportation and communication) might be expected to serve as a complementary input likely to attract foreign direct investment in post-conflict environments. A possible explanation for this difference may be attributed to the high absorptive capacity constraints in post conflict countries, which take time to be addressed, and can result to foreign aid being counterproductive or having negative effects [see McGillivray 2006].

The estimated coefficients for primary commodity exports are statistically significant and the magnitude of the effect appears to be somewhat larger (in absolute value) relative to that in peaceful developing countries-see Tables 4. 3 and 4 4. This indicates the importance of primary commodity exports on foreign direct investment in post-conflict environments. It can be seen that a 1 per cent increase in primary commodity exports will lead to a 18 to 29 per cent increase in foreign direct investment in these economies, which suggests that an abundance of natural resources attracts more foreign direct investment. This result is consistent with previous research by Addison and Heshmati (2003), where natural resource was found to have a positive and significant relationship with foreign direct investment. Asiedu (2006) also found such a relationship between natural resources and foreign direct investment. The majority of these post-conflict countries, 17 out of 24 countries, of which 15 are in Sub-Saharan Africa, have an abundance of natural resources such as crude oil, diamonds, gold, iron-ore, titanium, copper and rutile among others. This may reflect on the significance of primary commodity exports in the decisions for the inflow of foreign direct investment in these economies.

Table 4.2 Descriptive Statistics of the Variables

Variables	Obs	Mean	Std. Dev.	Min	Max
FDI as a percentage of GDP	786	3.05	8.82	-82.89	90.74
Total commitment aid (% GDP)	707	7.13	10.57	0	65.55
Physical capital aid (% GDP)	707	5.34	9.13	0	57.92
Complementary aid (% GDP)	708	1.78	2.12	0	16.64
Complementary aid square (% GDP)	708	7.69	21.53	0	276.90
Primary commodity export (%GDP)	884	27.11	19.05	2.52	98.76
Conflict	474	7.66	2.52	1.08	12
Trade openness	877	62.38	33.51	10.83	219.17
Inflation	687	80.11	947.16	-13.05	23773.13
Population growth	984	2.33	1.25	-7.53	9.77
Total disbursed aid (% GDP)	731	159.10	307.88	0	5271.34
Multilateral disbursed aid (% GDP)	731	28.95	49.79	2.62	488.39
Technical disbursed aid (%GDP)	731	12.71	14.65	0	88.71
Grant disbursed (%GDP)	731	67.24	151.16	0	2494.66
Bilateral disbursed aid (%GDP)	731	50.19	116.05	2.02	2509.34
Bilateral–donor aid disbursed (%GDP)	731	29.72	74.12	1.13	1630.03
UK –aid disbursed (%GDP)	731	3.48	8.40	1.87	111.44
French – aid disbursed (%GDP)	731	4.62	25.68	2.60	658.38
Spanish –aid disbursed (%GDP)	731	0.89	4.19	1.78	98.38
Portuguese – aid disbursed (%GDP)	731	0.15	1.19	0.23	27.45
German – aid disbursed (%GDP)	731	4.42	11.74	4.15	263.91
US – aid disbursed (&GDP)	731	8.71	30.06	2.64	652.41
EU-aid disbursed (%GDP)	731	7.41	12.89	0.24	117.03
World Bank – aid disbursed (%GDP)	731	0.01	0.06	0	1.25

Total commitment aid expressed as a percentage of GDP consists of physical capital aid (% GDP) and complementary aid (% GDP). Total disbursed aid (% GDP) consist of multilateral disbursed aid (% GDP), technical disbursed aid (% GDP), grant disbursed (% GDP) and bilateral disbursed aid (% GDP). In the case of bilateral-donor aid disbursed (% GDP), this type of aid is a subset of bilateral disbursed aid and it is given on a bilateral basis by eight major donors. Specifically, it is the sum of foreign aid provided by the following: the United Kingdom, France, Spain, Portugal, Germany, the United States, the European Union and the World Bank. The UK –aid disbursed (%GDP), French – aid disbursed (%GDP), Spanish –aid disbursed (%GDP), Portuguese – aid disbursed (%GDP), German – aid disbursed (%GDP), US – aid disbursed (&GDP), the EU-aid disbursed (%GDP) and the World Bank – aid disbursed (%GDP) represent the amount of foreign aid provided on a bilateral basis by the eight major donors respectively. In the case of inflation, the negative number could be attributed to the prevalent macroeconomic problems in these economies.

Table 4.3 Commitment Aid and FDI in Post-Conflict Environments-Fixed and Random Effects Regressions (1970-2010)

Dependent variable: FDI as a percentage of GDP

	(1) FE	(2) FE	(3) FE	(4) RE
Physical capital aid (% GDP)	0.0843***	0.0627	0.1062**	0.1108**
	(0.0160)	(0.0503)	(0.0512)	(0.0529)
Primary commodity export (%GDP)	0.2809*	0.2792***	0.2914***	0.1830***
	(0.2061)	(0.0464)	(0.0459)	(0.0425)
Conflict	-0.2698*	-0.2714*	-0.2599*	-0.3249*
	(0.3016)	(0.1565)	(0.1542)	(0.1582)
Trade openness (% GDP)	-0.0230	-0.0225	-0.0185	0.0153
	(0.0670)	(0.0247)	(0.0243)	(0.0237)
Inflation	-0.0001	-0.0001	-0.0001	-0.0001
	(0.0001)	(0.0002)	(0.0002)	(0.0002)
Population growth	0.3223	0.3886	0.0770	0.3954
	(0.6652)	(0.6571)	(0.6542)	(0.5671)
Complementary aid (% GDP)	-	-0.1926*	-1.4473**	-0.4987*
		(0.2181)	(0.5357)	(0.4998)
Complementary aid (Square)	-	-	0.1262***	0.0612*
			(0.0378)	(0.0365)
Number of observations	365	365	365	365
F-Statistic	13.60***	9.56***	10.01***	-
LM Test (for Random Effects)	-	-	-	39.53***
Hausman test	-	-	-	44.18***

All coefficient estimates are reported above followed by the standard errors in parentheses. ***, **, and * denote significance at the 1%, 5% and 10% levels, respectively. All regressions also contain a constant term. Complementary aid squared increases at an increasing rate.

The estimates for the conflict variable measures the likelihood of future conflict occurring and are negatively significant in both fixed and random effects specifications-see Table 4. 3. Thus, suggesting that conflict has a negative association with foreign direct investment in these economies. A possible reason for this could be attributed to the unstable environment which may adversely affect foreign direct investment. This result is similar to that of a recent study by Kazunobu et al. (2013), where conflict was also found to have an inverse relationship with foreign direct investment.

This also corroborates with findings by Margit (2010), who discovered that an onset of fatal conflict reduces the inflow of foreign direct investment. Turning to the effect of trade openness, it is observed that the coefficients of the trade openness variable of the fixed effects are negative and statistically insignificant-see Table 4. 3. The same results hold for inflation and population growth.

Column 4 of Table 4.3 presents the random effects regression of physical capital aid, complementary aid and the other control variables. The pattern of results from the random effects is similar to those for the fixed effects regressions [see Table 4.3]. For instance, the random effects estimates for physical capital aid, primary commodity export and complementary aid squared are positive and statistically significant in both specifications. Also, those for complementary aid and conflict variables are negative, but statistically significant. However, the magnitude of the effects from the random effects model is slightly higher (in absolute value) for variables physical capital aid, conflict, population growth than the fixed effects estimates-see Table 4. 3. Nevertheless, the fixed effects result is preferred based on the Hausman test in the case of post-conflict countries-see column 4 of Table 4. 3.

In order to make comparisons, the estimates for peaceful developing countries are presented in Table 4.4, which include those economies not classified as post-conflict according to the UNDP Report (2008). According to Table 4. 4, the estimates suggest that physical capital aid, complementary aid and trade openness are positively and significantly associated with foreign direct investment across all specifications-see Table 4.4. Regarding the results on complementary aid in peaceful developing countries, these are similar to findings by Saleya and Sunesen (2012) and Bhavan et al. (2011), where complementary aid was found to have a positive and significant effect. However, the estimates for primary commodity export variable are negative, but statistically significant in all specifications-see Table 4.4. Moreover, the estimated coefficient for the conflict variable for peaceful developing countries is positive and statistically significant in both the fixed and random effects specifications-see Table 4.4. The positive association between conflict and foreign direct investment is however surprising. A possible explanation for this is that conflict could have been influenced by other factors (such as institutional reforms), which may have contributed to the positive and significant association of this with foreign direct investment.

In Table 4.4, four specifications on the relationship between commitment aid and foreign direct investment in peaceful developing countries are presented. Specifications 1-3 are the fixed effects, while specification 4 is the random effects. A Hausman test is also performed to determine between fixed and random effects in these economies. The results from Table 4.4 suggest that the random effects estimates are not biased and therefore favoured over the fixed effects. The LM test estimate also indicates the presence of individual effects, hence suggesting that the random effects model is preferred to the Ordinary least square (OLS).

Table 4.4 Commitment Aid and FDI in Peaceful Developing Countries-Fixed and Random Effects Regressions (1970-2010)

Dependent variable: FDI as a percentage of GDP

	(1) **FE**	**(2)** **FE**	**(3)** **FE**	**(4)** **RE**
Physical capital aid (%GDP)	0.0232** (0.0113)	0.0199** (0.0156)	0.0335** (0.0162)	0.0338** (0.0161)
Primary commodity export (%GDP)	-0.1449*** (0.0217)	-0.1449*** (0.0217)	-0.1444*** (0.0216)	0.1305*** (0.0203)
Conflict	0.2990*** (0.0578)	0.2970*** (0.0582)	0.2620*** (0.0593)	0.2698*** (0.0581)
Trade openness (%GDP)	0.1006*** (0.0121)	0.1006*** (0.0121)	0.0993*** (0.0120)	0.0920*** (0.0110)
Inflation	-0.0003 (0.0002)	-0.0003 (0.0002)	-0.0002 (0.0002)	-0.0002 (0.0002)
Population growth	-0.7354*** (0.1532)	-0.7338*** (0.1533)	-0.7040*** (0.1532)	0.7018*** (0.1435)
Complementary aid (%GDP)	-	0.0262* (0.0838)	0.3016** (0.1274)	0.2623** (0.1208)
Complementary aid (Square)	-	-	-0.0231** (0.0081)	-0.0212** (0.0078)
Number of observations	1241	1241	1241	1241
F-Statistic	35.68***	30.58***	27.94***	-
LM Test (for Random Effects)	-	-	-	893.56***
Hausman test	-	-	-	5.06

All coefficient estimates are reported above followed by the standard errors in parentheses. ***, **, and * denote significance at the 1%, 5% and 10% levels, respectively. All the regressions also contain a constant term. Complementary aid squared increases at a decreasing rate.

4.4.2 Instrumental variable and other alterative estimators

The rationale for using the instrumental variable (IV) is that, it can be very helpful in resolving problems of endogeneity, omitted-variable bias and measurement error [Cameron and Trivedi (2010)]. It is possible for foreign aid to be endogenous and if such a problem is not resolved, it may lead to bias and inconsistent estimates, which may render the results invalid. To correct for this, as explained above, an instrumental variable estimator experimenting with different instruments is employed.

As a starting point, OLS is used to estimate the above equation, followed by estimates of the two stage least squares (2SLS), limited information maximum likelihood (LIML) and Fuller's modified LIML (with alpha equal to 1) techniques. Using the OLS regression the coefficients in equation (4) can only be consistent if all the explanatory variables are exogenous. In this study, it is likely that the disaggregated aid variables (physical capital aid and complementary aid) are endogenous, especially if donors decide to allocate more aid to countries where foreign direct investment is overlooked [Harms and Lutz 2006]. To resolve such a problem, equation (4) is estimated by using instrumental variable technique; thereby experimenting with various instruments based on both donor and recipients characteristics. This is followed by the LIML and Fuller's modified LIML (with alpha equal to 1) estimators.

The rationale for employing the LIML and Fuller's modified LIML (with alpha equal to 1) estimators are to improve on the choice of the instrumental variable estimator and to check whether similar results hold across different estimators in the study. The OLS regression results are reported in column 1 of Table 4.5, which is followed by the estimates for the instrumental variable, limited information maximum likelihood (LIML) and Fuller's modified LIML (with alpha equal to 1) for countries emerging from conflict. The results in Table 4.5 and Table 4.6 present the various test statistics across the different specifications and estimators. With respect to physical capital aid, the estimated coefficients are positive and highly significant in all specifications and estimators, which suggest there is no crowding-out effects on foreign direct investment in post-conflict economies. Furthermore, it is notable that the estimated coefficients of physical capital aid are somewhat different across different estimators-see Table 4.5.

The estimated coefficients of complementary aid are negative, but statistically significant. However, the combined effect of physical capital aid and complementary aid is positive and statistically significant across all specifications, which corroborates with findings by Saleya and Sunesen (2012).

The estimates show that every dollar of aid has the same effect on foreign direct investment regardless of either physical or complementary aid and this is especially strengthened by the crowding-in effect of physical capital aid (the combined effect of which with complementary aid leads to a positive impact) on foreign direct investment in these economies. Primary commodity exports have the expected signs in all specifications and are significant in most specifications, as can be seen in Tables 4.5 and 4.6. The estimated coefficients of the conflict variable are negative and statistically significant across all specifications and estimators in Table 4.5 and Table 4.6, respectively. Such a negative relationship supports the perspective of the inverse association conflict can have with foreign direct investment in post-conflict environments.

In columns 2-4 of Table 4.5, debt is used as an excluded instrument for the allocation of aid with different specifications and estimators (such as IV, LIML and Fuller' LIML with alpha=1). This is because heavily indebted countries are likely to receive foreign aid and post-conflict countries may not be an exception. In this regard, evidence from the Kleibergen-Paap Wald F-Statistics suggests that the instrument (debt) is strong as it exceeds the critical value across the above specifications-see Table 4.5, columns 2-4. Similarly, the estimated coefficients of the inflation variable are negative and statistically significant in most specifications of Table 4.5 and Table 4.6. Thus, suggesting the negative association between inflation and foreign direct investment in these economies. This may reflect the fact that countries with large and sudden changes in economic policies are likely to have high inflation, which can be negatively associated with the inflow of foreign direct investment. These results are in line with a previous study by Addison and Heshmati (2003), where a negative relationship was found especially for North Africa and the Middle-East.

In the case of trade openness, the estimated coefficients are positive and statistically significant in most specifications in both Table 4.5 and Table 4.6. These results are also consistent to recent findings by Liargovas et al. (2012), where trade openness was found to have a positive and long-run relationship with foreign direct investment in developing economies. Further studies by Harms and Lutz (2006), Selaya and Sunesen (2008), Selahuddin (2009) and Addison and Heshmati (2003) have also found a positive and significant relationship between trade openness and private foreign investment. However, Asiedu's (2002) results suggest that trade openness in the case of Sub-Sahara Africa has a smaller marginal effect relative to other regions.

The coefficients for the population growth variable have the expected sign, but are statistically insignificant. However, the population growth variable is omitted in columns 7 and 8 of Tables 4.5 and 4.6 in order to avoid multicollinearity since the log of population is used as instrument. Various test statistics are also reported in Tables 4.5 and 4.6, experimenting with varied sets of aggregate instruments based on donor and recipients characteristics. The outcomes in Table 4.5 and Tables 4.6 suggest that the instruments are strong across the different specifications and estimators. For instance, the weak identification test (Kleibergen-Paap Ward F-Statistic), which assesses the strength of the partial correlation between the excluded instruments and the endogenous variables from the first-stage regressions, exceeds the critical values in all specifications of Table 4.5 (except in column 8 where the strength of the instruments from the Kleibergen-Paap Ward F-Statistic is somewhat reduced).

Similarly, the results from Table 4.6 (based on the Kleibergen-Paap Ward F-Statistic) also show that the instruments are strong across specifications and estimators as the excluded instruments and the endogenous variables from regressions also exceed the critical values. Accordingly, in Table 4.5, columns 5 and 6, two excluded instruments (i.e. currently a colony of the donor and debt ratio to exports) are used, whilst in columns 7, three excluded instruments (i.e. debt ratio, currently a colony of the donor and the log of population) are experimented and are all strong across specifications. In the case of column 8 of Table 4.5, the study use four excluded instruments are employed (i.e. debt ratio to export, currently a colony of the donor, the log of population and ever a colony of the donor). Since the log of population forms part of the excluded instruments, the population growth variable is omitted in columns 7 and 8 in order to avoid multicollinearity.

It is also noted that the Stock-Wright LM Statistic, which is robust for identifying the presence of weak instruments, is also significant (partially) in all specifications of Table 4.5. Turning to the Hansen J test of over-identification, the null hypothesis is that the instruments are valid. That is, the instruments are appropriately uncorrelated with the error term and that the excluded instruments are correctly excluded from the estimated equation. In this regard, it is observed that this Hansen J statistic becomes strengthen when two to four aggregated instruments are employed, hence passing all test thresholds-see Tables 4.5 and 4.6. Moreover, in all specifications, the coefficients on physical capital aid remain positive and statistically significant. Furthermore, the coefficients of the combined effects of physical capital aid and complementary aid are also consistently positive and significant-see Tables 4.5 and 4.6.

In addition, in Table 4.6, the combined effects of physical and complementary aid on foreign direct investment are presented. In doing so, we use the fitted aid value (in columns 4 and 5), which is estimated from the predicted aid ratio, aggregated across donors as excluded instruments [see Arndt et al (2010)]. In the cases of columns 7 and 8 of Table 4.6, debt ratio to export, official common language, aggregated donor population and recipient population, and currently a colony of the donor multiplied by the ratio of the log of population of the donor relative to the recipient country were used as excluded instruments and similarly exceeds the critical values in all specifications.

Table 4.5 Commitment Aid and FDI in Post-conflict Environments: Instrumental Variable Regressions (1970-2010)

Dependent variable: FDI as a percentage of GDP

	(1) OLS	(2) IV	(3) LIML	(4) Fuller (1)	(5) LIML	(6) Fuller	(7) LIML	(8) LIML
Physical capital aid (% GDP)	0.1117**	0.6389***	0.6389***	0.6202***	0.8151***	0.7904***	1.1082***	1.0035***
	(0.0486)	(0.2196)	(0.2165)	(0.2062)	(0.2475)	(0.2350)	(0.3755)	(0.3876)
Complementary aid (% GDP)	-0.0209	-2.1675***	-2.1675***	-2.1132***	-2.6792***	-2.6073	-5.5833**	-5.0860**
	(0.6717)	(0.6258)	(0.6172)	(0.5884)	(0.7071)	(0.6726)	(2.3501)	(2.3034)
Complementary aid square (% GDP)	0.0163	0.1157***	0.1157***	0.1143***	0.1293***	0.1274***	-0.3149**	0.2924
	(0.0521)	(0.0214)	(0.0211)	(0.0204)	(0.0245)	(0.0004)	(0.1447)	(0.1374)
Primary com. export (%GDP)	0.0371	0.0812**	0.0812*	0.0843**	0.0518*	0.0559*	0.0653**	0.0766**
	(0.1929)	(0.0857)	(0.0845)	(0.0838)	(0.0827)	(0.0819)	(0.0738)	(0.0711)
Conflict	-0.3866*	-0.4709**	-0.4709**	-0.4630**	-0.5460**	-0.5355**	-0.5251**	-0.4963**
	(0.2341)	(0.1887)	(0.1861)	(0.1825)	(0.2129)	(0.2079)	(0.2441)	(0.2419)
Trade openness (%GDP)	0.0718	0.1220**	0.1220**	0.1236**	0.1064**	0.1086**	0.1049**	0.1121***
	(0.0969)	(0.0502)	(0.0495)	(0.0493)	(0.0469)	(0.0466)	(0.0429)	(0.0414)
Inflation	-0.0002	-0.0014**	-0.0014**	-0.0014**	-0.0014**	-0.0014**	-0.0015**	-0.0015**
	(0.0001)	(0.0002)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)
Population growth	0.6415	0.3659	0.3659	0.3946	0.0951	0.1331	-	-
	(0.5843)	(0.4974)	(0.4905)	(0.4798)	(0.4872)	(0.0937)	-	-
Number of observations	365	327	327	327	327	327	327	327
Excluded instruments	-	1	1	1	2	2	3	4
Kleibergen-Paap Wald F-Stat	-	-	18.64	18.64	16.93	16.93	4.35	3.55
Stock-Wright LM Stat	-	-	10.33	10.33	18.64	18.64	17.80	20.97
(Probability)	-	-	0.000	0.000	0.000	0.000	0.000	0.000
Hansen J. Stat	-	-	-	-	2.713	2.730	0.261	0.687
(Probability)	-	-	-	-	0.1955	0.1985	0.6096	0.7092

Table 4.6 Combined Effects of Physical and Complementary Aid on FDI in Post-Conflict Environments (1970-2010)

Dependent variable: FDI as a percentage of GDP

	(1) FE	(2) RE	(3) OLS	(4) IV	(5) LIML	(6) LIML	(7) LIML	(8) Fuller (1)
Physical capital aid Complementary aid	0.0356*	0.0766*	0.1027*	0.3596***	0.3596***	0.3829***	0.7431**	0.5842***
	(0.0449)	(0.0440)	(0.0594)	(0.1352)	(0.1335)	(0.0845)	(0.3464)	(0.1979)
Complementary aid square (% GDP)	0.0317**	0.0243	0.0082	0.0422	0.0422	0.0477*	0.3132	0.1881
	(0.0166)	(0.0175)	(0.0215)	(0.0416)	(0.0411)	(0.0351)	(0.3020)	(0.1643)
Primary commodity - export (%GDP)	0.2788***	0.1825***	0.0383*	0.0757*	0.0757*	0.0690*	0.1257**	0.0411*
	(0.0461)	(0.0425)	(0.1866)	(0.0551)	(0.0539)	(0.0692)	(0.0562)	(0.0558)
Conflict	-0.2624**	-0.3239**	-0.3891**	-0.4734***	-0.4734***	-0.4897***	-0.6458***	-0.5836***
	(0.1558)	(0.1583)	(0.2256)	(0.1765)	(0.1743)	(0.1744)	(0.2087)	(0.1834)
Trade openness (% GDP)	0.0193	0.0158	0.0715	0.1262**	0.1262**	0.1231****	0.0919**	0.1053***
	(0.0246)	(0.0237)	(0.0956)	(0.0550)	(0.0543)	(0.0424)	(0.0387)	(0.0352)
Inflation	-0.0001	-0.0001	-0.0002*	-0.0004**	-0.0014**	-0.0014**	-0.0014*	-0.0013**
	(0.0002	(0.0002)	(0.0001)	(0.0006)	(0.0006)	(0.0006)	(0.0007)	(0.0006)
Population growth	0.3832	0.4626	0.6419	0.5245	0.5245	0.4743	-	-
	(0.6802)	(0.5647)	(0.5853)	(0.4910)	(0.4850)	(0.3248)	-	-
Number of observations	365	365	365	327	327	327	327	327
F-Statistics	10.14***	-	-	-	-	-	-	-
Excluded instruments	-	-	-	1	1	2	4	4
Kleibergen-Paap Wald F-Stat	-	-	-	-	33.20	26.96	2.26	2.26
Stock-Wright LM Stat	-	-	-	-	17.76	30.38	43.73	43.73
(Probability)	-	-	-	-	0.000	0.000	0.000	0.000
Hansen J. Stat	-	-	-	-	-	0.048	0.656	0.885
(Probability)	-	-	-	-	-	0.8272	0.7204	0.6425

4.5 Disbursed Aid and Foreign Direct Investment

In the previous section, the relationship between commitment aid and foreign direct investment is examined. In this section, we present results of fixed and random effects regressions on the effects of disaggregated disbursed aid (bilateral aid, multilateral aid, grant and technical aid). The use of disbursed aid reflects the actual amount of aid allocated to recipient countries and it is also likely that, commitment aid can be equivalent to the amount disbursed, an issue also echoed by Hudson (2013). This is also likely in conflict-affected countries where aid inflow is expected to be higher for humanitarian reasons, reconstruction purposes and the maintenance of peace and stability, thereby creating the enabling environment for FDI. Amidst such situations, windows of opportunities in terms of aid inflows are likely especially in the immediate aftermath of violent conflict, as donors are highly likely to honour their commitments. Consequently, whether there is any difference between commitment and disbursed aid in the case of conflict-affected countries is explored. In this respect, total commitment aid (expressed as a percentage of GDP) and total disbursed aid (expressed as a percentage of GDP) is used, and the estimate indicates a positive and significant correlation between these two variables [see appendix 4. 4]. Despite this outcome, the results of disaggregated disbursed aid are also presented here in order to determine whether such types of aid also have an association with foreign direct investment in post-conflict environments.

In Table 4.7, the results for the fixed and random effects regressions on disbursed aid and foreign direct investment in post-conflict environments are presented. Specifications 1-3 are the fixed effects, while specification 4 shows the random effects. A Hausman test is also performed to determine between these two types (fixed and random) effects and the results from this as provided in Table 4.7, suggest that the fixed effects estimates are not biased and therefore are favoured over the random effects. The estimates associated with multilateral aid are positive and statistical significant at 5 % level in three specifications with foreign direct investment. The magnitude of its impact is slightly larger in the fixed effect regressions relative to the corresponding random affect. A 1 per cent increase in multilateral aid will lead to 1.3 and 1.7 per cent increase in foreign direct investment in post-conflict environments. A possible explanation for the positive association between these two variables is attributed to the assurance and confidence investors may have on the presence of multilateral agencies in such economies. That is, since multilateral donor agencies (such as the IMF among others) place heavy emphasis on macroeconomic stability of a country before giving aid, such a drive undertaken by them may be accompanied by assurance of foreign direct investment.

A further possible explanation may be related to the prevalence of policy conditionality on multilateral aid and such policies may create opportunity for foreign direct investment in countries emerging from conflict. The estimated results corroborates with a previous study by Harms and Lutz (2006), who found that additional inflow of multilateral aid has a positive and significant relationship with foreign direct investment. The estimated coefficients on grant are positive and statistically significant at the 1 % and 10% levels across all specifications, with the exception of column 2 of Table 4.7. They indicate that a 1 per cent increase of grant will lead to an increase in foreign direct investment by 0.4 and 0.9 per cent. The magnitude of the impact is however smaller when compared to that of the multilateral aid-see Table 4.7. Moreover, it is observed that the coefficients of the technical aid and bilateral aid variables are statistically insignificant across all specifications.

By contrast, in the case of inflation, the estimated coefficients are negative and statistically significant in all specifications, which strongly suggest that this has a negative association with foreign direct investment in post-conflict environments. All the other control variables (except trade openness) have the expected signs, but are insignificant. In sum, it is observed that multilateral disbursed aid and grant have a positive association with foreign direct investment in countries-affected by conflict. Moreover, the magnitudes of the effect of multilateral disbursed aid are higher relative to grant aid-see Table 4.7.

Table 4.7 Disbursed Aid and FDI in Post-Conflict Environments-Fixed and Random Effects Regressions (1970-2010)

Dependent Variable: FDI as a percentage of GDP

	(1) FE	**(2) FE**	**(3) FE**	**(4) RE**
Multilateral aid (%GDP)	0.0147 (0.0100)	0.01338*** (0.0099)	0.0165** (0.0093)	0.0143** (0.0078)
Grant (%GDP)	0.0043*** (0.0016	0.0081 (0.0053)	0.0044*** (0.0018)	0.0093* (0.0057)
Technical aid (%GDP)	-0.0774 (0.0491)	-0.0746 (0.0488)	-0.0743 (0.0458)	-0.0711 (0.0453)
Primary commodity exports (%GDP)	0.2949 (0.2090)	0.2958 (0.2091)	0.2260 (0.1880)	0.2341 (0.1904)
Conflict	-0.2296 (0.3021)	-0.2325 (0.3028)	-0.2429 (0.2902)	-0.2457 (0.2914)
Trade openness	-0.0304 (0.0743)	-0.0321 (0.0746	-0.0055 (0.0662)	-0.0098 (0.0672)
Inflation	-0.0002* (0.0001)	-0.0002** (0.0001)	-0.0002** (0.0001)	-0.0002** (0.0001)
Population growth	0.5872 (0.7832)	0.6035 (0.7791	0.5892 (0.6202	0.5999 (0.6303)
Bilateral aid (%GDP)	-	-0.0043 0.0059	-	-0.0055 (0.0060)
Number of observations	365	365	365	365
F-Statistics	10.92***	10.97***	-	-
LM Test (for Random Effects)	-	-	-	36.03***
Hausman test	-	-	-	31.56***

All coefficient estimates are reported above followed by the standard errors in parentheses. ***, **, and * denote significance at the 1%, 5% and 10% levels, respectively. All regressions also contain a constant term.

4.6 Bilateral-Donor Aid and Foreign Direct Investment

4.6.1 Bilateral-Donor Aid (aggregated and disaggregated) and Foreign Direct Investment

Table 4.8 presents the results from the fixed effects and random effects regressions based on equation 4, which incorporates the bilateral-donor aid variable. This is the aggregate of aid provided by eight major donors (the UK, France, Germany, USA, Spain, Portugal, the European Union and the World Bank) on a bilateral basis (to conflict-affected recipient countries) expressed as a percentage of GDP.

This type of aid differs from bilateral aid referred to in section 4.5, because bilateral-donor aid is a subset from bilateral aid, and it is provided by the aforementioned donors (to conflict-affected countries), being aggregated and expressed as a percentage of GDP. The inclusion of the bilateral-donor aid variable in to the aforementioned equation enables exploration of whether such aid (bilateral-donor aid aggregated) provided by such major donors has an effect on foreign direct investment in the focal countries. The estimates for the effect of disaggregated bilateral-donor aid are also presented in Table 4.8. The motivation for this is to investigate whether aid provided on a bilateral basis by specific major donors (such as UK-aid, US-aid, French-aid, Spanish-aid, Portuguese-aid, German-aid, EU and the World Bank) has an effect on foreign direct investment in post-conflict economies. In this respect, estimates for both the fixed and random effects are presented in Columns 1 and 2 in Table 4.8, respectively. The LM test estimate indicates the presence of individual effects, thus suggesting that the random effects model is preferred to the OLS. However, after a Hausman test is performed, as the results in Table 4.8 indicate, the fixed effects estimates are appropriate and therefore favoured over the random effects.

From Table 4.8, it can be seen that the estimated coefficients for bilateral-donor aid (aggregated) are consistently positive and statistically significant in both the fixed and random effects regressions. This suggests that aggregated bilateral-donor aid provided by certain donors (which is aggregated) may attract foreign direct investment in post-conflict environments. The estimates for the effects of disaggregated bilateral-donor aid from eight major donors are also examined. Following the fixed effects regressions in Table 4.8, the estimated coefficients on UK-aid, French-aid, US-aid, and the EU-aid are positive and statistically significant at the 1 % level. The Spanish-aid and Portuguese-aid are also found to be positive and statistically significant at the 10 % level. In the case of German aid, the estimated coefficients are negative and statistically significant for both the fixed and random effects specifications. The magnitudes of the coefficients for UK-aid in both the fixed and random effects are larger relative to French-aid and the US-aid, except for EU-aid, being very similar in both specifications. That is, a 1 % increase in UK-aid, French-aid, US-aid and EU-aid, will lead to an increase in foreign direct investment by 3.5 %, 0.9 %, 2.3 % and 3.9 %, respectively. However the estimated coefficients for the World Bank-aid are insignificant. A possible reason for the positive and significant relationship of UK-aid, French-aid, US –aid, Spanish-aid and Portuguese-aid on foreign direct investment can be attributed to the historical relationship and trading links/ties with recipient countries. Regarding which, most of the post-conflict countries in the sample group are former

English, French, Spanish or Portuguese colonies and this may create opportunities for more investors from such donor countries to invest in these economies.

The pattern of the results between the fixed effects and random effect regressions seem somewhat similar-see Tables 4.8. For instance, the fixed effects estimates for UK-aid, French-aid, Spanish-aid, Portuguese-aid, US-aid, EU-aid, primary commodity exports and trade openness are positive and statistically significant. Further, the estimates for German aid and conflict are negative and statistically significant in both the two effects (fixed and random effects). Finally, with regard the World Bank aid and population growth, the estimated coefficients in both specifications are insignificant.

Table 4.9 presents the regression results, which includes country aid and country foreign direct investment (FDI) interaction. The use of this approach is beneficial relative to a panel chow test because it does not require splitting of the data into two time periods or loss of degrees of freedom. The approach of running one regression, which includes country aid and country FDI, is therefore employed**.** The pattern of the results from the fixed effects is very similar to that for the random effects regression and the LM test estimate indicates the presence of individual effects, thus suggesting that the random effects model is preferred to the OLS. However, results from the Hausman test in Table 4.9 indicate that the fixed effects estimates are appropriate and therefore preferred to the random effects. In this respect, the results from the fixed effects indicate that UK-aid interacted with country FDI, French-aid interacted with country FDI, Spanish-aid interacted with country FDI, US-aid interacted with country FDI and EU-aid interacted with country FDI have complementary effect in countries emerging from conflict. However, a negative effect emerged with regard to German-aid interacted with country FDI. The results also suggest that primary commodity exports and trade openness have a positive and significant association with foreign direct investment in these economies.

Table 4.8 Bilateral -Donor Aid Disbursed and FDI in Post-Conflict Environments-Fixed and Random Effects Regressions (1970-2010)

Dependent Variable: FDI as a percentage of GDP

	(1) **Fixed effects**	**(2)** **Random effects**
Bilateral-donor aid (aggregated)	0.05138*** (0.0095)	0.0063** (0.0027)
UK aid (% GDP)	0.0346*** (0.0095)	0.0406*** (0.0093)
French aid (% GDP)	0.0090*** (0.0028)	0.0008 (0.0027)
Spanish aid (% GDP)	0.0443* (0.0219)	0.0493* (0.0211)
Portuguese aid (% GDP)	0.0422* (0.0201)	0.0368 (0.0200)
German aid (% GDP)	-0.0146*** (0.0035)	-0.0163*** (0.0034)
United States Aid (% GDP)	0.0232*** (0.0036)	0.0252*** (0.0033)
EU aid (% GDP)	0.0393*** (0.0083)	0.0435*** (0.0081)
World Bank aid (% GDP)	0.6375 (0.9860)	0.3041 (0.2049)
Primary commodity exports (%GDP)	0.2492*** (0.0391)	0.1967*** (0.0345)
Conflict	-0.4028*** (0.1204)	-0.3570** (0.1159)
Trade openness	0.0594** (0.0208)	0.0512** (0.0195)
Inflation	-0.0001 (0.0002)	-0.0001 (0.0002)
Population growth	0.2301 (0.5317)	0.2238 (0.4403)
Number of observations	365	365
r2	0.5575	0.5969
F-Statistics	22.0600***	-
LM Test (for Random Effects)	-	24.85***
Hausman test	-	16.66**

All coefficient estimates are reported above followed by the standard errors in parentheses. ***, **, and * denote significance at the 1%, 5% and 10% levels, respectively. All regressions also contain a constant term. Bilateral-donor aid disaggregated consists of eight major donors, which include the following: UK-Aid, French-Aid, Spanish-Aid, Portuguese-Aid, German-Aid, US-Aid, EU-Aid and World Bank-Aid (expressed as a percentage of GDP) to countries affected by conflict. More specifically, these represent the amount of bilateral-donor aid (expressed as a percentage of GDP) from the United Kingdom, France, Spain, Portugal, Germany, the United States, European Union and the World bank to post-conflict countries respectively.

Table 4.9 Bilateral-Donor Aid Disbursed (Disaggregated)-Country Aid and Country FDI Interaction Effect in Post-Conflict Environments-Fixed and Random effects Regressions (1970-2010)

Dependent Variable: FDI as a percentage of GDP

	(1) **Fixed effects**	**(2)** **Random effects**
UK aid and country FDI interaction	0.0507*** (0.0094)	0.0596*** (0.0092)
French aid and country FDI interaction	0.0093*** (0.0021)	0.0122*** (0.0020)
Spanish aid and country FDI interaction	0.0499* (0.0228)	0.0508** (0.0221)
Portuguese aid and country FDI interaction	0.0382* (0.0209)	0.0307 (0.0210)
German aid and country FDI interaction	-0.0054* (0.0032)	-0.0077** (0.0032)
United States Aid and country FDI interaction	0.0114*** (0.0030)	0.0148*** (0.0029)
EU aid and country FDI interaction	0.0510*** (0.0038)	0.0567*** (0.0082)
World Bank aid and country FDI interaction	0.8064 (0.3318)	0.0907 (0.1111)
Primary commodity exports	0.3026*** (0.0394)	0.2405*** (0.0347)
Conflict	-0.2902** (0.1234)	-0.2602** (0.1203)
Trade openness (%GDP)	0.0818*** (0.0212)	0.0625 (0.0202)
Inflation	-0.0009 (0.0002)	-0.0006 (0.0019)
Population growth	0.0388 (0.5513)	0.1736 (0.4468)
Number of observations	365	365
r2	0.5158	0.5589
F-Statistics	24.2946***	-
LM Test (for Random Effects)	-	27.82***
Hausman test	-	16.03***

All coefficient estimates are reported above followed by the standard errors in parentheses. ***, **, and * denote significance at the 1%, 5% and 10% levels, respectively. All regressions also contain a constant term. Here, we run one equation, which includes country aid and country FDI interaction in both the fixed and random effects regressions. This includes UK-Aid and country FDI interaction, French-Aid and country FDI interaction, Spanish-Aid and country FDI interaction, Portuguese-Aid and country FDI interaction, German-Aid and country FDI interaction, US-Aid and country FDI interaction, EU-Aid and country FDI interaction, and World Bank-Aid and country FDI interaction (all expressed as a percentage of GDP).

4.6.2 Bilateral-Donor Aid Allocation Decision

Using equation (5), the results for Ordinary least Squares (OLS) are presented in Table 4.10 regarding the rationale for the disbursement of bilateral-donor aid in post-conflict environments. Major donors, including the UK, France, Spain, Portugal, Germany, the United States (US), the European Union (EU) and the World Bank are compared in terms of the allocation decision for aid. The bilateral-donor specific effects can be crucial for understanding the allocation of aid in countries emerging from conflict and the estimated outcomes in relation to these are presented in Table 4.10.

The estimate on shared common language and ever a colony, thus representing historical relationships, is positive and statistically significant across specifications, except for Germany and the World Bank. Thus, suggesting that historical relationships have a significant effect on the allocation decision of bilateral-donor aid in these economies. Donor-recipient population ratio and colony*donor-recipient population ratio, representing the influence of the donor, also emerged to be significant for bilateral-donor aid, French-aid, Portuguese-aid, EU-aid and aid from the World Bank. This implies that, it is not only historical relations that matters for the allocation decision of bilateral-donor aid, for donor influence also play a significant role (for some donors) in the allocation of aid in these economies. However, the explanatory power for the allocation decision of bilateral-donor aid is somewhat low, with only 7 % of the variance being explained-see Table 4.10 column 1. A plausible reason is that bilateral-donor aid is not only disbursed on the basis of historical relations and influence, but other needs of the recipient economies can also play a crucial role in this decision making process. Hence, different donors may implement different aid disbursement criteria.

Similarly, the estimate on the allocation of UK-Aid among recipients is also positively associated with the historical relationship the United Kingdom has with these economies, However, the variables on influence (such as donor-recipient population ratio and colony*donor-recipient population ratio) do not seem to play any significant role for the allocation of UK-Aid in these economies. However, the proportion of the explained variance for UK-Aid is only about 9%, which indicates a diversification of this aid in to other priority areas of need in these conflict-affected economies. That is, this outcome imply that, while historical relations may be important for the allocation of UK-Aid, it is also given for other needs, such as peace and security, poverty reduction and democratic reform in these economies. All the other variables remain insignificant.

It is, however, important to note that the results on historical relationships seem to dominate the estimates. For instance, the coefficients on historical relations are positive and statistically significant for bilateral-donor aid, UK-aid, Spanish-aid, Portuguese-aid, US-aid and EU-aid, with the exception being French-aid, which turns out to be negative but significant. This suggests that for these donors, historical relationships (shared common language and ever a colony) play a crucial role in the allocation of aid in these post-conflict economies. In the case of the World Bank, the estimated coefficient on the donor-recipient population ratio and colony*donor-recipient population ratio, representing the influence of the donor is positive and statistically significant at the 10 % level, but insignificant for historical relations. This indicates that the allocation of the World Bank bilateral aid is determined by donor influence rather than historical relationship in the focal economies.

Table 4.10 Bilateral -Donor Aid Allocation Decision in Post-Conflict Environments (1970-2010)

	1	2	3	4	5	6	7	8	9
	OLS	OLS	OLS	OLS	OLS	OLS	OLS	OLS	OLS
	Bilat-Donor aid	UK.aid	French-aid	Spanish-aid	Portuguese-aid	German-aid	US-aid	EU-aid	World Bank-aid
Currently a colony	-4.23 (-5.35)	-5.98 (-6.44)	-4.47 (-0.26)	-2.88*** (-3.62)	-2.13 (-3.80)	-7.13 (-2.20)	-1.87 (-5.83)	-4.95 (-2.64)	-2.98 (-2.06)
Common language and ever a colony	2.62** (1.95)	2.28*** (7.55)	-2.91*** (-5.54)	2.59*** (2.98)	4.28*** (4.16)	3.58 (1.41)	1.19*** (2.59)	1.01*** (2.64)	6.10 (1.75)
Donor-recipient population ratio	6.26*** (3.98)	1.11 (0.64)	1.57*** (3.23)	-1.73 (-0.95)	3.82*** (3.69)	5.26 (1.33)	-1.19 (-0.18)	3.97*** (8.58)	1.82* (1.87)
Colony* donor-recipient pop. ratio	2.50 (1.37)	8.16 (4.83)	1.09** (2.36)	3.28* (1.68)	4.30 (0.63)	6.74 (0.91)	1.96** (2.74)	7.86** (3.98)	1.10 (0.62)
r2	0.07	0.09	0.05	0.03	0.05	0.01	0.07	0.09	0.1
Correlation Coefficients	0.11	0.26	0.11	0.07	0.01	-0.15	0.23	0.12	0.01

Estimation is by ordinary least squares. The estimated equation corresponds to equation 5 in section 4.6. All coefficient estimates are reported above followed by the t-statistics in parentheses. ***, **, and * denote significance at the 1%, 5% and 10% levels, respectively. All regressions also contain a constant term. A measure of low income poverty is not included because of data unavailability on an annual basis for most countries affected by conflict.

4.7 Multilateral Aid and Foreign Direct Investment in Post-Conflict Environments: Is there a Long-Run Relationship?

4.7.1 Methodology

The above question is explored in this section by using an error correction based panel co-integration approach, as proposed by Persyn and Westerlund (2008), to examine the long-run relationship between multilateral disbursed aid and foreign direct investment in countries emerging from conflict. The rationale for using multilateral disbursed aid includes the following. First, the presence of multilateral agencies in these economies may lead to an increased assurance and confidence among investors. That is, since multilateral agencies (such as the IMF among others) place more emphasis on the macroeconomic stability of a country before giving aid, such an initiative undertaken by them may be accompanied by an assurance of foreign direct investment. Second, prevalence of policy conditionality on multilateral aid may create opportunities for foreign direct investment in these economies. Furthermore, multilateral aid to recipient countries is more likely to enhance other sectors, which may contribute to long-term impact.

In this respect, the relationship between multilateral disbursed aid and foreign direct investment) can be represented as follow:

$$FDI_{it} = \alpha_i + \delta_i t + \beta MAD_{it} + \varepsilon_{it} \qquad (6)$$

where, FDI_{it} is the foreign direct investment (expressed as a percentage of GDP) in country i at time t, MAD_{it} is the amount of multilateral aid disbursed (as a percentage of GDP) received by country i at time t, α_i is country-specific fixed effects, $\delta_i t$ denotes time trends and ε_{it} is the error term.

Prior to estimating the long-run relationship, a cross-sectional dependence test proposed by Pesaran (2004) is performed, which tests whether the residuals are correlated across entities. The test can be biased in the presence of cross-sectional dependence (also known as contemporaneous correlation). The null hypothesis is the residuals are not correlated against the alternative that they are and the use of this test statistic is pertinent to both balanced and unbalanced panels. Table 4.11 presents the results of the Pesaran cross-sectional dependence test, which indicate a rejection of the null hypothesis and thus implies that the residuals are correlated across entities.

Table 4.11 Test for Cross-Sectional Dependence

	Pesaran CD Test
Panel	11.797***

Notes: *** denotes significance at the 1% level

Because there is presence of cross-sectional dependence, as evidenced above, the approach proposed by Dricoll-Kraay (1998) using standard errors, is employed which are robust to cross-sectional dependence especially when the time span in years is larger (i.e. 41years). This approach is also applicable in both balanced and unbalanced panels. Table 4.12 presents the regression outcomes with Driscoll-Kraay standard errors.

Table 4.12: Fixed Effects Regression with Driscoll-Kraay Standard Errors
Dependent variable: FDI as a percentage of GDP

Variable	**coefficient**	**Driscoll-Kraay standard error**	**P-Value**
Multilateral aid (% gdp)	0.0205	0.0099	0.044**

****** denotes significance at the 5% level.

To further cater for the error terms being dependent across entities, the Cross-Sectional Augmented (CIPS) procedure proposed by Pesaran (2007) is employed, which has the advantage that it can allow cross-sectional dependence by using the augmented ADF regression with the cross-sectional averages of lagged levels and the first difference of the individual series in the panel. Moreover, the Pesaran CIPS approach enhances the panel unit roots test to examine the time series properties of the above variables. The findings from the CIPS statistics suggest the presence of a unit root in levels for foreign direct investment and multilateral disbursed aid-see Table 4.13. However, the estimates indicate a rejection of the unit root for the alternative, when the first differences of foreign direct investment and multilateral disbursed aid are used, thereby implying that the first difference of foreign direct investment and multilateral aid disbursed are I (1) variables.

Table 4. 13: Panel Unit Root Tests

Variables	Deterministic Terms	CIPS Test
Levels:		
FDI_{it}	c, t	**-2.511**
MAD_{it}	c, t	**-1.693**
First Differences:		
ΔFDI_{it}	c	**-5.972*** **
ΔMAD_{it}	c	**-6.019*** **

Notes: *** denotes significance at the 1% level. The CIPS test is observed by using FDI and multilateral aid disbursed in levels with a constant and trend (c and t) and for their first differences a constant (c) is employed. In order to adjust for serial correlation two lags are selected. The 5% and 1% critical values for the CIPS intercept and trend are -2.650 and -2.780, and for the intercept only are -2.160 and -2.300 respectively.

4.7.2 Error-Correction Panel Co-integration Test

To examine the long-run relationship between multilateral disbursed aid and foreign direct investment, Westerlund (2007) and Persyn and Westerlund (2008) error-correction based co-integration approach is followed. The results from the first differences of both foreign direct investment and multilateral disbursed aid confirm the order of integration of these variables as I (1)-see Table 4.14. The approach of Westerlund (2007) and Persyn and Westerlund (2008) observe four panel co-integration tests and can also permit cross-sectional dependence by means of bootstrapping. The test can be represented as follows:

$$\Delta FDI_{it} = \delta'_i d_t + \alpha_i \left(FDI_{it-1} - \beta'_i MAD_{it-1}\right) + \sum_{j=1}^{\rho i} \alpha ij\, \Delta FDI_{it-j} + \sum_{j=-qi}^{\rho i} \gamma ij\, \Delta MAD_{it-j} + \varepsilon_{it} \quad (7)$$

Since the test permits cross-sectional dependence through bootstrapping, this can be represented as follows:

$$\Delta FDI_{it} = \delta'_i d_t + \alpha_i FDI_{it-1} + \lambda'_i MAD_{it-1} + \sum_{j=1}^{\rho i} \alpha ij\, \Delta FDI_{it-j} + \sum_{j=-qi}^{\rho i} \gamma ij\, \Delta MAD_{it-j} + \varepsilon_{it} \quad (8)$$

where, $\alpha_i$is the speed of adjustment term (error correction) back to the equilibrium relationship$\left(FDI_{it-1} - \beta'_i MAD_{it-1}\right)$. If the speed of adjustment is less than zero (0), it implies that there is error correction and this indicates a co-integrating equilibrium relationship between the foreign direct investment (FDI_{it}) and multilateral disbursed aid (MAD_{it}). Alternatively, a speed of adjustment equal to zero (0), indicates no error

correction and hence no co-integration between foreign direct investment (FDI_{it}) and multilateral disbursed aid (MAD_{it}). Therefore, the test has a null hypothesis of no co-integration against the alternative that the panel is co-integrated as a whole or at least one of the units is co-integrated. In performing the test, the Akaike Information Criteria (AIC) is allowed to choose the optimal lag and lead lengths, while the Bartlett Kernel window width is set using the rule: $4(\frac{T}{100})^{2/9} \approx 3$ [see Westerlund (2007), Persyn and Westerlund (2008)].

Table 4.14 presents the results of the panel co-integration tests, with the calculated values of the error correction statistics and the asymptotic p-values being provided in columns 1 and 2, respectively. Using the asymptotic p-values the results suggest a rejection of the null hypothesis (for all the four tests) at the 1 % level-see column 2 of Table 4.14. This implies that the panel is co-integrated as a whole for all the four tests, thus suggesting a co-integrating equilibrium relationship (i.e. long-run relationship) between foreign direct investment and multilateral disbursed aid in these economies. This result also corroborates with the previous study by Harms and Lutz (2006), where additional inflow of multilateral aid was found to have a positive and significant relationship with foreign direct investment.

Table 4.14: Panel Co-integration Test

Test statistic	**Values** **(1)**	**P-Values** **(2)**
Gt	-2.969	0.000
Ga	-17.138	0.000
Pt	-22.471	0.000
Pa	-31.366	0.000

All tests are performed with a constant and trend in the test regression. The Akaike Criterion is allowed to choose the optimal lag and lead lengths, while the Bartlett Kernel window width is set using the rule: $4(\frac{T}{100})^{2/9} \approx 3$.

To further account for cross-sectional dependence, the panel co-integration test is carried out using the bootstrap approach, which enhances estimation of robust p-values, with the test being based on bootstrap distribution and Table 4.15 reports the results of this.

Table 4.15: Panel Co-integration Test Based on Bootstrap Distribution

Test	Values (1)	P-Values (2)	Bootstrap robust P-Values (3)
Gt	-3.159	0.000	0.000
Ga	-16.598	0.001	0.000
Pt	-19.061	0.000	0.002
Pa	-24.412	0.000	0.010

All tests are performed with a constant and trend in the test regression. Also, the Akaike Criterion is allowed to choose the optimal lag and lead lengths, while the Bartlett Kernel window width is set using the rule: $4(\frac{T}{100})^{2/9} \approx 3$. 200 bootstrap replications are used.

Using the bootstrap robust p-values in Table 4.15, the results suggest a rejection of the null hypothesis for all four tests at the 1 % level and that the panel is co-integrated as a whole. Thus, confirming that there is a long-run relationship between foreign direct investment and multilateral disbursed aid in these economies. A possible reason for the co-integration equilibrium relationship between foreign direct investment and multilateral disbursed aid can be attributed to the prevalence of policy conditionality on multilateral aid, whereby this can create opportunities for foreign direct investment in these economies.

4.8 Chapter Summary

This chapter has investigated the relationship between foreign aid (disaggregated) and foreign direct investment in conflict-affected countries. This study differs from previous studies on this relationship in five ways: Firstly, the relationship between foreign aid and foreign direct investment in conflict-affected environments has been probed using fixed effects and random effects models. Secondly, the effects of complementary aid, physical capital aid and other control variables in these settings have been compared with peaceful developing countries. Thirdly, the effects of disbursed aid, especially multilateral aid, grant, technical assistance and bilateral aid on foreign direct investment in conflict-affected environments has been researched using panel regression analysis. Fourthly, the effects of bilateral-donor aid and disaggregated bilateral-donor aid (such as UK-aid, US-aid, French-aid, Spanish-aid, Portuguese-aid, German-aid, EU-aid and the World Bank) on foreign direct investment, as well as their allocation decision in post-conflict environments has been investigated. Finally, the long-run relationship between multilateral disbursed aid and foreign direct investment in the focal economies has been examined using an error correction based panel co-integration approach.

In examining the empirical relationship, cross-country panel data regression analysis (fixed effects and random effects) and instrumental variable techniques have been used to unravel

the effect of disaggregated aid on foreign direct investment. The empirical methodology enabled an examination of the effect of various categories of foreign aid on foreign direct investment in such environments. To begin with, the relationship between commitment aid (i.e. physical capital aid and complementary aid) and foreign direct investment was investigated.

Preliminary results based on the fixed effects, random effects and instrumental variable estimations suggest that physical capital aid has a positive and significant relationship with foreign direct investment in post-conflict environments. This implies that there is no crowding-out effect between physical capital aid and foreign direct investment in countries emerging from conflict. In addition, it emerged that the magnitudes of the estimated impact are larger relative to those in peaceful developing countries. With respect to complementary aid, the results suggest a negative and statistically significant relationship with foreign direct investment in the focal environments. However, the effect of this aid in these economies is in contrast to those in peaceful developing countries in that estimates indicated a quite opposite effect. This infers that complementary aid (social infrastructure aid and economic infrastructure aid) can be used to create an enabling environment that may attract foreign direct investment in peaceful developing economies. This result is consistent with previous empirical studies by Saleya and Sunesen (2008, 2012) and Bhavan et al. (2011), where this form of aid (complementary aid) was found to attract foreign direct investment in developing countries.

The negative association between complementary aid and foreign direct investment in conflict-affected environments is surprising, because aid geared towards social (education, health and water) and economic infrastructure (energy, transportation and communication) might be expected to serve as a complementary input likely to attract foreign direct investment in such economies. A possible reason for the above difference can be attributed to the high absorptive capacity constraints in the focal countries, which take time to be addressed, and hence can result in to foreign aid being counterproductive or having negative effects [see McGillivray (2006)]. Furthermore, the issue of fungibility of aid could also be crucial to understanding it effect. However, the combined effect of physical capital aid and complementary aid has been found to be positively associated with foreign direct investment implying that every one dollar of aid has the same effect on foreign direct investment regardless of which of these two sources it comes from.

This result corroborates with findings by Saleya and Sunesen (2008, 2012). According to the estimates, an increase in conflict is likely to cause a decline in foreign direct investment

and the magnitude of the impact is larger (in absolute terms) relative to peaceful developing countries. This clearly implies that conflict has a negative association with foreign direct investment in conflict-affected economies. The estimated results for primary commodity exports suggest a positive relationship with foreign direct investment and the magnitude of its impact appears to be somewhat larger (in absolute value) in post-conflict economies relative to those in peaceful developing countries.

Disbursed aid variables have been incorporated to examine whether they have an effect on foreign direct investment in post-conflict environments, with the results suggesting that multilateral aid and grants have a positive and significant relationship with foreign direct investment in these economies. Although the findings suggest bilateral aid as having an insignificant relationship, this is, however not, the case with bilateral-donor aid. Regarding which, findings from the application of specific bilateral-donor aid in the fixed effect model, suggest that UK-aid, French-aid, Spanish-aid, Portuguese-aid, US-aid and EU-aid have a positive relationship with foreign direct investment in such environments. The results from the random effects regressions also suggest a similar trend for the above donors in these economies. In terms of the magnitude of the impact, the findings suggest that UK-aid has a larger effect on foreign direct investment relative to French aid and US aid, except for EU-aid, which seems to be very similar in both specifications.

The outcomes have also shown that there is a positive and significant relationship between shared common language (proxy for historical relations) and the allocation of bilateral-donor aid, UK-aid, US-aid, German-aid and EU-aid. This suggests that, for these donors, this relationship can play a crucial role in the allocation of aid in these economies. It has also been noted that the magnitude of the effect of a shared common language for UK-aid is larger relative to German and the bilateral-donor aid. In addition, findings show that there is a positive and significant relationship between colony*donor-recipient population ratio representing the influence of the donor and the allocation of World Bank aid. This implies that donor influence matters more than historical relations (proxied by shared official language) regarding the allocation of World Bank aid in the recipient post-conflict economies. However, the explanatory powers (the variance of aid explained) are somewhat lower, indicating that aid may not only be disbursed on the basis of historical relations and influence, but other needs of the recipient economies could also play a crucial role in the disbursement decision making process. Hence, different donors may implement different aid disbursement criteria.

Based on the error correction panel co-integration approach of Westerlund (2007) and Persyn and Westerlund (2008), it was found that there is the presence of long-run relationship between multilateral disbursed aid and foreign direct investment. This is consistent with the outcomes from the bootstrap distribution approach (in Table 4.16) and also, corroborates with previous studies such as Harms and Lutz (2006), where additional inflow of multilateral aid was found to have a positive and significant relationship with foreign direct investment. A possible reason for the co-integration equilibrium relationship between multilateral disbursed aid and foreign direct investment can be attributed to the prevalence of policy conditionality on multilateral aid, whereby such policies create opportunities for such investment in the post-conflict economies.

Appendix 4. 1: Panel Unit Root Tests for Variables in Chapter 4

[Pesaran CIPS]

Variables	Deterministic Terms	CIPS Statistics
Levels:		
FDI_{it}	c, t	**-2.511**
$Paid_{it}$	c, t	**-1.485**
PCE_{it}	c, t	**-2.542**
$CONF_{it}$	c, t	**-1.680**
TO_{it}	c, t	**-2.489**
INF_{it}	c, t	**-2.151**
POP_{it}	c, t	**-1.288**
$Caid_{it}$	c, t	**-2.414**
First Differences:		
FDI_{it}	c	**-5.972*** **
$Paid_{it}$	c	**-6.190*** **
PCE_{it}	c	**-5.887*** **
$CONF_{it}$	c	**-3.600*** **
TO_{it}	c	**-5.898*** **
INF_{it}	c	**-6.128*** **
POP_{it}	c	**-4.939*** **
$Caid_{it}$	c	**-6.190*** **

Notes: *** denotes significance at the 1% level. The CIPS test is observed by using FDI, complementary aid, physical capital aid, trade openness, population growth, inflation, primary commodity exports, and conflict in levels with a constant and trend (c and t) and for their first differences a constant (c) is employed. In order to adjust for serial correlation two lags are selected. The 5% and 1% critical values for the CIPS intercept and trend are -2.650 and -2.780, and for the intercept only are -2.160 and -2.300 respectively.

The above test is conducted for Conflict-Affected Economies on commitment aid and other variables in Chapter 4.

Appendix 4. 2: Test for Cross-Sectional Dependence

	Pesaran CD Test
Panel	9.468***

Notes: *** denotes significance at the 1% level. The above panel is for committed aid in Conflict-Affected Economies in Chapter 4.

Appendix 4. 3 : Cross-Sectional Dependence Fixed Effects for Conflict-Affected Economies using Commitment Aid

Dependent variable: FDI as a percentage of GDP

Variables	**CD-Fixed Effects**
Physical capital aid (% GDP)	0.0735** (0.0476)
Primary commodity exports (% GDP)	0.0774** (0.01024)
Conflict	-0.1267** (0.0766)
Trade Openness (% GDP)	0.0699 (0.0499)
Inflation	-0.0076** (0.0005)
Population growth	0.1392 (0.4605)
Complementary aid (% GDP)	-0.4815** (0.4002)
Complementary aid (Square)	0.0200 (0.0394)
Number of Observations	984
F-Statistics	10.53***

All coefficient estimates are reported above followed by the standard errors in parentheses. ***, **, and * denote significance at the 1%, 5% and 10% levels, respectively. All regressions also contain a constant term.

Appendix 4. 4: Correlation between Total Committed Aid and Total Disbursed Aid

	Total Committed Aid	**Total Disbursed Aid**
Total Committed Aid	**1.0000**	
Total Disbursed Aid	**0.4575**	**1.0000**

Appendix 4. 5: List of Conflict-Affected Countries

No	Country
1	Angola
2	Sierra Leone
3	Burundi
4	Liberia
5	Chad
6	Côte d'Ivoire
7	Mozambique
8	Ethiopia
9	Rwanda
10	Guinea-Bissau
11	Namibia
12	Sudan
13	Democratic Republic of Congo
14	Congo Republic
15	Uganda
16	Indonesia
17	Papua New Guinea
18	Nepal
19	Sri Lanka
20	Georgia
21	Tajikistan
22	El Salvador
23	Guatemala
24	Nicaragua

Source: UNDP Report (2008).

Chapter 5

5.0 Foreign Aid and Labour Market in Conflict-Affected Environments

5.1 Introduction

In most developing countries the supply of labour tends to exceed the demand for labour, which is because the working population ratio is very high with very low levels of human capital and given the low levels of investment high levels of unemployment and/or underemployment are common. In addition, unstable polity and inadequate infrastructure retard growth in post-conflict economies. In view of this, Collier (2007, 2000a) contends that the issue of the labour market is therefore crucial, being arguably a significant source of risk to conflict re-occurrence or rebellion in most post-conflict economies.

The general consensus is that if foreign aid is invested in human capital and infrastructural development, then it may serve as a complementary input to foreign direct investment, which may enhance labour market performance. Such economies would want to attract foreign investors, and are therefore likely to give tax exemptions, lower taxes, and operate flexible business regulations, which may improve labour market. With post conflict countries being characterised by lower labour costs, relative to other inputs, it is conceivable that the inflow of foreign direct investment into these economies will increase both the demand for labour and wages. Foreign investors can build on local human capital by providing training opportunities for employees and thus be seen as carriers of new knowledge and technology. The issue of concern here is how foreign aid and labour markets are related? This study therefore examines the inflow of foreign aid into post-conflict economies and its effects on the labour market.

Despite the vast interest in foreign aid, there is little work examining the relationship between foreign aid and the labour market. Iyengar et al. (2011) examine the impact of foreign aid on labour market insurgence using a case study of Iraq for the period 2004 to 2008. Their study used a simple labour supply and production model to identify the economic factors that affect the impact of reconstruction aid on insurgent violence, using Ordinary Least Square (OLS) and Instrumental Variable (IV) estimation techniques. The research outcome suggests that foreign aid geared towards labour intensive projects have led to a decline in violence in Iraq and hence the authors come to the general conclusion that employment growth can decrease violence during periods of civil conflict. Apart from this study, to the best of my knowledge, no other work has examined the relationship between foreign aid and labour markets in post conflict economies and hence this remains a major gap that is to be filled by this study.

More specifically, this investigation will contribute to the literature by examining the relationship between foreign aid and the labour market, as well as the demographic components of the labour market (females and youth) in post conflict economies. It also contributes to the extant literature by examining the long-run relationship between foreign aid and the labour market in post conflict economies.

The chapter is set out as follows: Section 5.2 presents the data and methodology underlying the empirical analysis. Section 5.3 entails the results and discussion on foreign aid and labour force participation along with female and youth labour force participation rates in post conflict environments. Section 5.4 presents the estimated results regarding the relationship between foreign aid and employment rate as well as female and youth employment rates in post conflict environments, whilst section 5.5 presents those results on the long-run relationship between foreign aid and the labour market (employment rate) using a panel co-integration approach, while section 5.6 has some concluding remarks.

5.2 Data and Methodology

This section describes the data and methodology used to examine foreign aid and its effect on the labour market in conflict-affected environments. The following variables are used to measure the labour market:

i. Total labour force participation rate
ii. Female labour force participation rate
iii. Youth labour force participation rate
iv. Total employment rate
v. Female employment rate
vi. Youth employment rate

The data on total labour force participation and employment rates are obtained from the International Labour Office (ILO), whilst those regarding foreign aid are obtained from the Organisation for Economic Co-operation and Development (OECD). These variables not only permit determination of the relationship between foreign aid and total labour force participation, as well as total employment rates in post conflict environments, but also allow for examination of its effect on the demographic components of female and youth. An important aspect of the ILO data is that they are reasonably harmonised and hence available for comparison across countries. The study employs panel data from 24 post conflict developing countries (according to the United Nations Development Programme-2008 classification-see appendix 5.1) over the period 1980-2010. Annual data were collected on all variables and the countries selection criteria is based on the gross domestic

product per capital in constant 2005 US dollars and the availability of data on the key variables.

Table 5.1 displays a detailed description of the data sources and definition of the dependent and explanatory variables used.

Table 5.1: Data Definitions and Sources

Data Definitions and Sources		
Dependent Variables:	Definition	Source
Labour force particiaption rate	Labour force employed and unemployed expressed as a percentage of the population between the ages 15 and 64 years.	ILO 2005 Key Indicators of the Labour Market (KLIM) 7th Edition
Female labour force participation rate	Female labour force employed and unemployed expressed as a percentage of the female population between the ages 15and 64years.	ILO 2005 Key Indicators of the Labour Market (KLIM) 7th Edition
Youth labour force participation rate	Youth labour force employed and unemployed expressed as a percentage of the youth population between the ages 15 and 24 years.	ILO 2005 Key Indicators of the Labour Market (KLIM) 7th Edition
Employment rate	Percentage of the working-age-population (15years and older) that is employed.	ILO 2005 Key Indicators of the Labour Market (KLIM) 7th Edition
Female employment rate	Percentage of the female working-age-population (15years and older) that is employed.	ILO 2005 Key Indicators of the Labour Market (KLIM) 7th Edition
Youth employment rate	Percentage of youth working-age-population between 15 and 24 years that is employed.	ILO 2005 Key Indicators of the Labour Market (KLIM) 7th Edition
Explanatory variables:	**Definition**	**Source**
Foreign Direct Investment	Net inflow of FDI expressed as a percentage of GDP	World Development Indicators (WDI) April 2012
ODA Total Net	Official development assistance disbursed to developing countries expressed in constant 2010 US dollars.	OECD database
Tertiary enrolment rate	Students enrolled in tertiary education, regardless of age, expressed as a percentage of the age group that officially corresponds to this level of education.	World Development Indicators (WDI) May, 2013
Conflict	It is the average of internal (i.e. civil disorder, civil war/coups, and political violence) and external conflict scores (i.e. war, cross-border conflicts and Foreign Pressure). That is, the score of each component ranges from 0-12, where a higher number implies very low risk of conflict re-occurrance, where as a lower number means	International Coubtry Risk Guide (ICRG)

	the opposite.	
Population growth	The growth rate of the population (ie expressed as a percentage).	World Development Indicators (WDI) April 2012
GDP per capita	Gross domestic product per capita in constant 2005 US dollars using purchasing power parity rates.	World Development Indicators (WDI) April 2012

5.2.1 Methodology

To examine the relationship between foreign aid and the labour market in post conflict environments, the following model based on variations of Feldmann (2009a and 2009b) is estimated as:

$$LM_{it} = \alpha + \beta_1 SER_{it-1} + \beta_2 FDI_{it-1} + \beta_3 AiD_{it-1} + \beta_4 (AiD \times FDI)_{it-1} + \beta_5 POP_{it} + \beta_6 CONF_{it-1} + YrD_t + \varepsilon_{it} \quad (1)$$

LM_{it} is the labour market (which is measured by labour force participation rates and employment rates in the focal economies), i denotes country, t denotes time, SER_{it} is the tertiary school enrolment rate, FDI_{it} is foreign direct investment, AiD_{it} is foreign aid, $(AiD \times FDI)_{it}$ an interaction term for foreign aid and foreign direct investment, POP_{it} denotes population growth, $CONF_{it}$ is conflict, YrD_t denotes year dummies and ε_{it} is the error term. The error term ε_{it} comprises two terms: $\varepsilon_{it} = \eta_i + u_{it}$ where η_i is a time-invariant country-specific effect and therefore treated as random, whilst u_{it} is a random error term. An interaction term between aid and foreign direct investment is employed is order to examine any indirect effect of foreign aid (through foreign direct investment) on the labour market. It is likely that, the inflow of foreign aid into these economies will contribute towards infrastructural development and human capital, which can create an enabling environment for foreign direct investment and this in turn, is likely to have an effect on the labour market. In particular, it may create the possibility for the employment of labour through the training of personnel, which would improve skills levels and hence, the greater the likelihood of a strong labour market.

In order to control for country specific effects, equation (1) is estimated using both fixed effects and random effects. The use of random effects enables exploration of both cross-country and time-series variation in the sample. However, this approach may be inconsistent if the effect is correlated with the independent variables. A Hausman specification test is therefore performed to determine between the random effect and fixed effect models. The choice between random effects and ordinary least square (OLS) is determined by the Breusch and Pangan Lagrange Multiplier (LM) test.

The variables on foreign aid, foreign direct investment, tertiary school enrolment, conflict, aid and foreign direct investment interaction are lagged by one year. This is because it is likely that the impact of these variables may be felt after some time to realise the effect on labour market performance. To account for this, lag values of the above variables in the estimated equation (1) are used and which will alleviate problems of simultaneity. An indirect effect of foreign aid through foreign direct investment on the labour market may also be possible, which is accounted for by using an interaction term of foreign aid and foreign direct investment. A panel co-integration approach is also employed to examine whether a long-run relationship exists between foreign aid and the labour market.

In equation (1) above, the coefficient representing the tertiary school enrolment rate is a proxy for the literacy rate and is expected to have a positive effect on labour market performance, especially the labour force participation and employment rates. An increase in the number of tertiary school enrolments may increase the literacy rate in an economy, which leads to more skilled labour force this in turn may enhance growth in an economy [see Stengos and Aurangzeb (2008)]. An increase in educational attainments may also increase the supply of labour [see Contreras et al. (2011)].

The coefficient of the variable representing foreign aid is expected to be positive. First, the provision of foreign aid may have both a direct and indirect effect on the labour market, either in isolation or through an interaction term. That is, a direct relationship is possible if aid is invested in human capital (i.e. education and health). Regarding the later relationship, the inflow of foreign aid into these economies may contribute towards infrastructural development and human capital, which can create an enabling environment for foreign direct investment and this in turn is likely to have an effect on the labour market. In particular, it may create the possibility for the employment of labour through the training of personnel, which would improve skills levels and hence, the likelihood for strong labour market. That is, training provided through technical assistance may improve the human capital of various personnel in the public and private domain, which in turn, can enhance the supply of high skilled labour in the domestic economy.

A study by Knack (2001) argues that foreign aid may be important if it is used for capacity building in the form of training facilities and payment of salaries in the public sector. In this respect, if foreign aid is tilted towards enhancing the labour market, it may contribute to consolidation of peace, poverty reduction, security and human dignity in these economies. Second, foreign aid may have a positive effect on the demand for labour on the premise that donor jobs and projects are much more attractive to high skilled labour as a

result of high wages and other fringe benefits as compared to that provided by domestic employers. In this regard, there can be a switch of high skilled labour from the domestic economy to NGOs, donor agencies or as consultants in donor funded projects in the public sector. Population growth is expected to have a negative effect on the labour market, for if it increases there is the likelihood of an expansion in the labour force, which may have an influence on labour force participation in an economy. That is, the working age population will increase and hence so too the supply of labour. However, an increase in population growth could lead to unemployment if there is insufficient demand for labour.

The variable conflict is expected to be negatively associated with labour market performance in post conflict countries. Because if an outbreak of hostilities are anticipated or have already occurred, then this will most likely affect the supply and demand for labour in an adverse way. Moreover, this may also depend on the magnitude and duration of conflict in these economies. For instance, a protracted long civil war may have a severe toll on the demographic groups (female and youth) as they may become unemployed, refugees, conscripted and even victims of varying kinds, which may affect the labour market in these economies.

Foreign direct investment is expected to have a positive effect on the labour market. With a higher inflow of foreign direct investment into the economy, foreign investors who are most likely to be bigger employers of the labour force relative to domestic investors and would expand their business if labour costs are lower relative to other inputs, thus creating opportunities for more labour demand. Foreign direct investment is therefore a crucial factor for labour market performance as it is expected to increase the demand for labour, in particular more skilled labour (due to technology spill overs) in the domestic economy. However, this will not occur if the level of skills of labour in the receiving countries is insufficient to meet that required by the investor, because it would have to import skilled labour from abroad, which consequently could lead to higher labour costs than were it otherwise.

5.3 Empirical Results

This section sets out the results and provides discussion on foreign aid and labour force participation in conflict-affected environments. It also includes analyses on the effects of foreign aid on the sub-demographic components, namely the female and youth labour force participation rates in these environments. Both total aid and disaggregated aid (multilateral aid, bilateral aid and technical aid) are used to examine the effects on labour market in these economies.

Table 5.2 below presents summary statistics of the dependent and explanatory variables used in the estimation, while Tables 5.3-5.5 show the fixed effects regressions results and the random effects estimates.

Table 5.2 Descriptive Statistics

Variables	Obs.	Mean	Std. Dev.	Min	Max
Total labour force participation rate	504	71.26	9.54	50.9	91.3
Female labour force participation rate	504	63.1	16.19	26.3	91.8
Youth labour force participation rate	504	53.81	13.69	30.7	81.9
Employment rate	480	64.83	10.63	39.8	88.3
Female employment rate	480	56.94	16.30	22	88.2
Youth employment rate	480	47.05	14.97	10.6	80
GDP per capita (ppp)	731	1926.31	1556.12	140.02	8142.57
School enrolment, tertiary	389	7.30	9.17	0.07	46.56
Total aid (as % GDP)	709	81.60	153.03	0.00	2714.32
Multilateral aid (as % GDP)	707	29.94	50.35	2.63	488.40
Bilateral aid (as % GDP)	709	51.75	117.50	2.02	2509.3
Technical aid (as % GDP)	709	13.11	14.70	0.00	88.72
FDI (as % GDP)	671	3.22	9.31	-82.89	90.74
Population growth	744	2.27	1.35	-7.53	9.77
Conflict	474	7.66	2.52	1.08	12
Total aid and FDI Interaction	670	305.81	1722.77	-12001.88	25454.5
Multilateral aid and FDI interaction	670	109.14	616.55	-4224.33	8734.79
Bilateral aid and FDI interaction	670	196.67	1184.10	-7777.56	17316.93
Technical aid and FDI interaction	670	30.29	108.25	-677.76	1680.24

Table 5.3 below presents regression results to explain labour force participation rates followed by results for female and youth labour force participation rates in Tables 5.4 and 5.5 respectively. In order to minimize aggregation bias, disaggregated aid, including multilateral aid, bilateral aid and technical aid are substituted for total aid in columns 2-4 in Tables 5.3-5.5 respectively. Substituting the various categories of aid serves as a robust check and also allows for examination of their effect on labour market performance.

Table 5.3 Regression to Explain the Labour Force Participation Rate in Post-Conflict Environments

Variables	**FE 1**	**FE 2**	**FE 3**	**FE 4**	**RE 1**
Tertiary school enrolments	0.1617***	0.1538**	0.1631**	0.1548**	0.1207*
	(0.0678)	(0.0721)	(0.0669)	(0.0646)	(0.0709)
Total aid (as % GDP)	0.0004	-	-	-	0.0011
	(0.0016)				(0.0019
Multilateral aid (as %GDP)	-	0.0034	-	-	-
		(0.0049)			
Bilateral aid (as % GDP)	-	-	-0.0004	-	-
			(0.0020)		
Technical aid (as % GDP)	-	-	-	-0.0054	-
				(0.0197)	
FDI (as % GDP)	0.0410**	0.0426**	0.0401**	0.0417**	0.0375**
	(0.1884)	(0.0183)	(0.0191)	(0.0203)	(0.0180)
Population growth	-0.6219	-0.6375	-0.6093	-0.6036	-0.6338
	(0.4768)	(0.4734)	(0.4753)	(0.4818)	(0.4717)
Conflict	-0.0627	-0.0572	-0.0667	-0.0621	-0.0376
	(0.0642)	(0.0637)	(0.0647)	(0.0649)	(0.6538)
Total aid & FDI interaction	-0.0002*	-	-	-	-0.0002*
	(0.0001)				(0.0001)
Multilateral aid & FDI interaction	-	-0.0006*	-	-	-
		(0.0004)			
Bilateral aid & FDI interaction	-	-	-0.0003*	-	-
			(0.0002)		
Technical aid & FDI interaction	-	-	-	-0.0018	-
				(0.0016)	
Number of observations	160	160	160	160	160
Number of countries	24	24	24	24	24
R2 (overall)	0.2801	0.2385	0.3009	0.3299	0.2366
F-Statistics	13.83***	14.11***	14.03***	14.32***	-
Wald x2	-	-	-	-	12.93**
Reverse Causality Test:	**total aid**	**multi. aid**	**bilat. aid**	**tech. aid**	-
labour force participation rate	2.9882	2.4811	0.1381	0.2734	-
	(4.8137)	(1.9554)	(3.4640)	(1.0466)	-
R2 (Within)	0.4989	0.6535	0.2855	0.2009	-
F-Statistics	731.19***	316.86***	707.45***	5.92***	-

Estimates with country-specific fixed effects, while in column 5 random effects substituted for fixed effects in tables 5.3-5.8. All coefficient estimates are reported above followed by robust standard errors, adjusted for cluster at country level in parentheses. ***, **, and * denote significance at the 1%, 5% and 10% levels respectively. All explanatory variables are lagged by one year. The Hausman test is not applicable because the model fails to meet its asymptotic assumptions. For the reverse causality test the labour force participation rate is swapped with total aid, multilateral aid, bilateral aid and technical aid as dependent variables in columns 1-4 where labour force participation rate is used as the independent variable and lagged by one year as well as the other explanatory variables.

5.3.1 Foreign Aid and Labour Force Participation Rate

Table 5.3 presents the regression results on foreign aid and the labour force participation rate. Based on the estimated results in Table 5.3, the coefficients for the variable tertiary school enrolments are statistically significant across all specifications and the magnitude of the effect appears to be somewhat large relative to that in the random effect-see Table 5.3. That is, an increase in tertiary school enrolments is associated with higher labour force participation among total working-age population in post-conflict economies. Thus, suggesting that a unit change in the previous value of tertiary school enrolments is a significant determinant of overall labour force participation among the working-age population in these economies.

The estimated coefficient for the variable total aid has the expected sign but is statistically insignificant and the same holds for multilateral aid, bilateral aid and technical aid. As mentioned above, an indirect effect of foreign aid (through foreign direct investment) on labour force participation may also be possible, because an inflow of foreign aid into these economies may contribute towards infrastructural development and human capital, which may create an enabling environment for foreign direct investment , which in turn may have an effect on labour market. In this respect, an indirect effect of the different categories of aid on overall labour force participation is therefore examined by using an interaction term of each aid category with foreign direct investment.

According to the results, there is a negative and statistically significant indirect relationship between total aid and labour force participation among the total working-age population. Similarly, there is a negative and significant indirect relationship between multilateral aid and labour force participation, as well as for bilateral aid and labour force participation, but the magnitudes of these coefficients are relatively small. An implication of this is that a percentage increase of total aid, multilateral aid and bilateral aid interacted with foreign direct investment leads to a decline in labour force participation among total working-age population in these economies. A further implication is that total, multilateral and bilateral aid interacted with foreign direct investment are seen as gross substitutes rather than gross compliments that influence more investment in the private sector, which will increase total labour force participation. A possible explanation for the adverse indirect relationship between these aid variables and labour force labour force participation may be that these categories of aid may not have been geared towards the labour market, but rather towards the recovery process of the post-conflict environments.

Another possible explanation is that of the high absorptive capacity rate of aid, hence making it difficult to enhance overall labour force participation in these economies.

The estimated coefficients of foreign direct investment are statistically significant for both the fixed and random effect specifications-see Table 5.3. This shows that a unit change in the previous value of the inflow of foreign direct investment will lead to between 3.8 and 4.3 per cent increase in labour force participation among the total working-age population. The economic inference is that the higher the volume of foreign direct investment, the higher the level of labour force participation among the working-age population in such economies. This finding corroborates with similar studies by Miriam et al (2012), where increases in foreign direct investment inflow are found to increase labour force participation significantly in the case of Puerto Rico. Their study employed a vector autoregressive model (VAR) to examine the relationship between foreign direct investment and the labour force participation rate in that country over the period 1980 to 2010. Turning to the effect of conflict on overall labour force participation, it is observed that the coefficient for the conflict variable is negative and statistically insignificant across all specifications-see Table 5.3. Similarly, the estimated coefficients for population growth are negative and statistically insignificant-see Table 5.3.

5.3.2 Foreign Aid and Female Labour Force Participation Rate

Table 5.4 presents the regression results to explain the Female Labour Force Participation Rate. Similar to the overall labour force participation, the estimated coefficients for Tertiary School Enrolments have a positive and statistically significant effect on labour force participation among the female working-age population-see Table 5.3 and Table 5.4. The outcome is that, a unit change in the previous enrolments of women in tertiary education will lead to between 32 and 40 per cent increase in labour force participation among the female working-age population in post conflict economies. The magnitude of the effect on female labour force participation seems large relative to the overall labour force participation-see Table 5.4 and Table 5.3. An inference of this is that higher enrolments of women in tertiary education, serves as an important predictor for higher labour force participation among the female working-age population in these economies.

The interaction terms with foreign direct investment, which measure the indirect relationship between the different categories of aid and female labour force participation, are also examined. The results show that there is a negative and statistically significant indirect relationship between total aid and female labour force participation. Similarly, there is a negative and significant indirect relationship between multilateral aid and female

labour force participation on the one hand, and bilateral aid and female labour force participation on the other, but the magnitudes of these coefficients are relatively small. It implies that a percentage increase of total aid, multilateral aid and bilateral aid interacted with foreign direct investment leads to a decline in female labour force participation. In this respect, total, multilateral and bilateral aid interacted with foreign direct investment are seen as gross substitutes rather than a gross compliment that stimulate more investment in the private sector which will increase the female level of labour force participation. Although there is no 'hard' evidence, a possible explanation for these indirect adverse relationships is that these categories of aid may have been directed more towards the post-conflict recovery process of rehabilitation, reintegration and disarmament of ex-combatants rather than enhancing female civilian labour force participation. Also, given the high proportion of Sub-Saharan countries in the sample of conflict-affected nations used in this research, the low levels of female employees could be attributed to cultural practices, such as early marriage and negative attitudes towards the education of girls, which are prevalent in these societies.

The estimated coefficients for foreign direct investment are statistically significant across all specifications-see Table 5.4 and the magnitude of the effects on female labour force participation is larger relative to the overall labour force participation among the working-age population in these economies. According to the results, a unit change in the previous year's value of the inflow of foreign direct investment will lead to between 11 and 12 per cent increase in labour force participation among the female working-age population. The implication of this is that the higher the volume of foreign direct investment, the higher the level of labour force participation among the female working-age population in the focal countries. In the case of the coefficients of the conflict variable, the results show a negative and statistically significant relationship with female labour force participation across the specifications-see Table 5.4. Moreover, the magnitude of these parameters appears to be larger (in absolute terms) relative to the overall labour force participation in this environments-see Table 5.4. Thus, indicating that this demographic component (women) of the population appears to suffer more during periods of conflict.

5.3.3 Foreign Aid and Youth Labour Force Participation Rate

Table 5.5 presents the regression results to explain the youth labour force participation rate. Column 1-4 present the fixed effects regressions, while in column 5, random effects is substituted for fixed effects.

In addition, in columns 1 and 5 total aid is used, while in columns 2-4 of Tables 5.5-5.8 the estimates employing multilateral aid, bilateral aid and technical aid, respectively, are presented.

The estimated coefficients for total aid, multilateral aid and bilateral aid have the expected signs, but are statistically insignificant. However, the estimated coefficient for technical aid is highly significant at the 1 % level-see Table 5.5, columns 4. This implies that an increased inflow of technical aid is associated with a higher rate of labour force participation among young people in these economies. An interaction term between the various categories of aid and foreign direct investment is employed to measure their indirect effects on youth labour force participation. In this respect, the results reveal that there is a negative and statistically significant indirect relationship between total aid and youth labour force participation. In a similar vein, technical aid interacted with foreign direct investment also indicates a small change (indirect effects) on labour force participation among young people, though negative and significant. An implication of this is that total aid and technical aid interacted with foreign direct investment are seen as gross substitutes rather than a gross compliment that influence more investment in the private sector which will increase the youth level of labour force participation.

The estimated coefficient for conflict implies a negative and significant relationship with youth labour force participation across all specifications and the magnitude of these effects appears to be large (in absolute terms) relative to the female and overall labour force participation in these countries-see Table 5.5. This implies that conflict is negatively associated with labour force participation among the young working-age population in post- conflict economies.

Table 5.4 Regressions to Explain the Female Labour Force Participation Rate in Post-Conflict States

Variables	**FE 1**	**FE 2**	**FE 3**	**FE 4**	**RE 1**
Tertiary school enrolments	0.3858*	0.37088*	0.3964*	0.4010*	0.3213*
	(0.2035)	(0.2118)	(0.2013)	(0.2051)	(0.1769)
Total aid (as % GDP)	0.0043	-	-	-	0.0053
	(0.0038)				(0.0041)
Multilateral aid (as %GDP)	-	0.0112	-	-	-
		(0.0094)			
Bilateral aid (as % GDP)	-	-	0.0057	-	-
			(0.0049)		
Technical aid (as % GDP)	-	-	-	0.0161	-
				(0.0281)	
FDI (as % GDP)	0.1197***	0.1211***	0.1179***	0.1209***	0.1183***
	(0.0350)	(0.0344)	(0.0354)	(0.0391)	(0.0352)
Population growth	-1.2679	-1.2557	-1.2566	-1.2191	-1.2448
	(0.9789)	(0.9576)	(0.9859)	(0.9963)	(0.9399)
Conflict	-0.1111**	-0.1126**	-0.1154***	-0.1263**	-0.0749***
	(0.1442)	(0.1386)	(0.1484)	(0.1546)	(0.1484)
Total aid & FDI interaction	-0.0005**	-	-	-	-0.0005**
	(0.0002)				(0.0002)
Multilateral aid & FDI interaction	-	-0.0013*	-	-	-
		(0.0007)			
Bilateral aid & FDI interaction	-	-	-0.0008**	-	-
			(0.0003)		
Technical aid & FDI interaction	-	-	-	-0.0035	-
				(0.0025)	
Number of observations	160	160	160	160	160
Number of countries	24	24	24	24	24
R2 (overall)	0.3496	0.3369	0.3681	0.3887	0.3131
F-Statistics	13.10**	13.22**	12.073**	14.26***	-
Wald x2	-	-	-	-	17.28***

Reverse Causality Test:	**total aid**	**multi. Aid**	**bilat. Aid**	**tech. aid**	
Female labour force part. rate	4.3790	2.1595*	2.0729	0.3810	-
	(2.6277)	(1.1626)	(1.7810)	(0.4853)	-
R2 (Within)	0.5047	0.6580	0.2895	0.2074	-
F-Statistics	557.51***	359.43***	757.47***	7.34***	-

Estimates with country-specific fixed effects, while in column 5 random effects substituted for fixed effects in each table 5.3-5.8. All coefficient estimates are reported above followed by robust standard errors, adjusted for cluster at country level in parentheses. ***, **, and * denote significance at 1%, 5% and 10% respectively. All explanatory variables are lagged by one year. The Hausman test is not applicable because the model fails to meet its asymptotic assumptions. For reverse causality test Labour force participation rate is swapped with total aid, multilateral aid, bilateral aid and technical aid as dependent variables in columns 1-4 where labour force participation rate is used as independent variable and lagged by one year as well as the other explanatory variables.

Table 5.5 Regressions to Explain the Youth Labour Force Participation Rate in Post-Conflict Countries

Variables	**FE 1**	**FE 2**	**FE 3**	**FE 4**	**RE 1**
Tertiary school enrolments	0.0261	0.0212	0.0312	0.0748	-0.0028
	(0.1127)	(0.1113)	(0.1118)	(0.1089)	(0.1249)
Total aid (as % GDP)	0.0019	-	-	-	0.0026
	(0.0028)				(0.0032)
Multilateral aid (as %GDP)	-	0.0039	-	-	-
		(0.0056)			
Bilateral aid (as % GDP)	-	-	0.0027	-	-
			(0.0045)		
Technical aid (as % GDP)	-	-	-	0.0927***	-
				(0.0312)	-
FDI (as % GDP)	0.0206	0.0217	0.0199	0.0010	0.0253
	(0.0198)	(0.0195)	(0.0199)	(0.0189)	(0.0208)
Population growth	0.4425	0.4552	0.4420	0.2502	0.4014
	(0.4252)	(0.4315)	(0.4233)	(0.3774)	(0.4092)
Conflict	-0.2915**	-0.2949***	-0.2918***	-0.2774***	0.2661***
	(0.0999)	(0.1006)	(0.1003)	(0.0901)	(0.0995)
Total aid & FDI interaction	-0.0009**	-	-	-	-0.0001
	(0.0002)				(0.0002)
Multilateral aid & FDI interaction	-	-0.0002	-	-	-
		(0.0005)			
Bilateral aid & FDI interaction	-	-	-0.0001	-	-
			(0.0004)		
Technical aid & FDI interaction	-	-	-	-0.0025*	-
				(0.0014)	
Number of observations	160	160	160	160	160
Number of countries	24	24	24	24	24
R2 (within)	0.1183	0.1175	0.1175	0.2451	0.1161
F-Statistics	12.10*	12.41*	11.96*	14.08***	-
Wald x2	-	-	-	-	12.54**
Reverse Causality Test:	**total aid**	**multi. aid**	**bilat. aid**	**tech. aid**	
Youth labour force part. Rate	4.1031	1.2632	2.8274	1.7187**	-
	(3.0792)	(1.1657)	(2.2241)	(0.8087)	-
R2 (Within)	0.5025	0.6511	0.2913	0.3298	-
F-Statistics	753.81***	427.92***	969.09***	4.09***	-

Estimates with country-specific fixed effects, while in column 5 random effects substituted for fixed effects in tables 5.3-5.8. All coefficient estimates are reported above followed by robust standard errors, adjusted for cluster at country level in parentheses. ***, **, and * denote the significance at the 1%, 5% and 10% levels, respectively. All explanatory variables are lagged by one year. The Hausman test is not applicable because the model fails to meet its asymptotic assumptions. For the reverse causality test the labour force participation rate is swapped with total aid, multilateral aid, bilateral aid and technical aid as dependent variables in columns 1-4 where labour force participation rate is used as the independent variable and lagged by one year as well as the other explanatory variables.

5.4 Foreign Aid and Employment Rate

This section presents the regression results regarding the relationship between foreign aid and employment rates in post-conflict environments. It also examines the effect on the female and youth employment rates in these environments. These sub-demographic groups are used to determine whether total aid or disaggregated aid (i.e. multilateral aid, bilateral aid and technical aid) have an association with employment rates. Tables 5.6-5.8 below present the estimated regressions to explain the aggregate employment rate, as well as the female and youth employment rates.

5.4.1 Foreign Aid and Female Employment rate

According to the regressions in Table 5.6, all estimates for the independent variables indicate statistically insignificant relationships with total employment in post-conflict economies. However, the results from the sub-demographic group (female and youth employment rates) in Tables 5.7 and 5.8 reveal some significant relationships. For instance, in Table 5.7 it can be seen that the previous year's value of foreign direct investment has a significant and positive relationship with female employment. As can be seen, a unit change in the previous year's value of foreign direct investment will lead to between a 7 and 9 per cent corresponding increase in employment among the female working-age population. The reason why this value of foreign direct investment explains only small changes in female employment may be attributed to the lower literacy level of girls (that is, gender gap education) in these post-conflict economies. This finding resonates with studies by Astrid (2006), where the gender gap in education and low technical skills were found to be explanatory factors for the low level of female employment by transnational companies in rural Indonesia. Another possible explanation for this outcome can be attributed to the social norms associated with women (such as reproductive constraints) and perhaps also due to the low gender awareness campaigns.

Whether the lag of multilateral aid and foreign direct investment has an effect on the labour market is also examined and it emerges that there is a negative and significant relationship between the lag of both on female employment. Similarly, total aid interacted with foreign direct investment has a small change on female employment, though negative and significant. An implication of this is that total aid and multilateral aid interacted with foreign direct investment are seen as gross substitutes rather than a gross complements that influence more investment in the private sectors which will increase the female level of employment. Another possible reason for this can be attributed to the low educational levels of women and hence the adverse effect on female employment in these economies.

5.4.2 Foreign Aid and Youth Employment Rate

In Table 5.8 the estimated results to explain the relationship between foreign aid and youth employment in these economies are reported. Those on technical aid reveal a positive and significant relationship between this and youth employment, indicating that a unit change in the previous year's value of technical aid will lead to a 7 per cent corresponding increase in employment among young people. A possible explanation for this is that, since technical aid normally takes the form of training, education and advice, which contributes significantly to the human capital development of the youth, thereby increasing their level of employment and hence, because they are an important part of the population for engendering growth. It is also important to note that because technical aid is lagged by one year, it is indicative that it takes a while for its effect on youth employment to occur in such economies. This result corroborates with the estimates from Table 5.5 on the effect of technical aid on youth labour force participation rates.

Examination of the lag effect of multilateral aid on youth employment reveals a positive and significant effect, which infers that an increase in such aid is associated with high employment among young people in these economies. Thus, pointing to the fact that some types of aid, such as technical and multilateral forms do have a favourable effect on the youth employment, but this does take some time to happen. Also worthy of note is that conflict has a negative and significant relationship with youth employment and the magnitude of the effect is higher relative to both the female and total employment rates-see Table 5.8. Thus, suggesting that during periods of conflict, younger individuals are more likely to be affected among the population. That is, they are often victims, survivors or perpetuators and hence the high rate of youth unemployment in most of these countries. This implies that in these countries the governments need to embark on creating more job opportunities and capacity building for youths and women as well as confidence building. This result is, however, contrary to findings by Feldmann (2006 and 2008) who elicited that war has a favourable effect on youth employment around the world in general. The reason for the difference can be attributed to the likelihood that post conflict countries possess some unique characteristics, which impact differently on youth when compared to countries generally around the world.

In the case of tertiary school enrolments, a negative and significant relationship with youth employment is discovered. That is, this outcome implies that a high level of youths in tertiary education will lead to a decline in employment among young people in these economies.

A possible reason for the negative association between tertiary school enrolment and youth employment can be attributed to the fact that those within the age 15 and 24years might be too young to contribute positively towards employment as most of them could still be enrolled in schools. Moreover, higher enrolment of young people in tertiary education in post-conflict environments may not necessary mean immediate youth employment due to the low level of job opportunities. A further possible explanation for the negative relationship between tertiary school enrolment and youth employment can be attributed to the likelihood that, most youths enrolled in tertiary institutions may not have the technical skills to maximize their chances of employment. This result does not resonate with the findings of Feldmann (2006, 2008 and 2009), where tertiary school enrolment is found to have a positive but insignificant effect on youth employment around the world. The reason for the difference may be attributed to the acute shortage of job offers in the immediate aftermath of violent conflict and hence, higher enrolment of youths in tertiary education may not necessary guaranty immediate youth employment.

Table 5.6 Regressions to Explain Employment Rate in Post-Conflict Countries

Variables	**FE 1**	**FE 2**	**FE 3**	**FE 4**	**RE 1**
Tertiary school enrolments	-0.0215	-0.0310	-0.0155	-0.0195	-0.0443
	(0.2050)	(0.1234)	(0.1224)	(0.1258)	(0.1114)
Total aid (as % GDP)	0.0021	-	-	-	0.0026
	(0.0031)				(0.0032)
Multilateral aid (as %GDP)	-	0.0068	-	-	-
		(0.0068)			
Bilateral aid (as % GDP)	-	-	0.0022	-	-
			(0.0041)		
Technical aid (as % GDP)	-	-	-	-0.0185	-
				(0.0232)	
FDI (as % GDP)	0.0236	0.0271	0.0212	0.0116	0.0223
	(0.0176)	(0.0171)	(0.0179)	(0.0207)	(0.0182)
Population growth	-0.5664	-0.5706	-0.5498	-0.4619	-0.5574
	(0.3981)	(0.3889)	(0.3929)	(0.3530)	(0.3873)
Conflict	-0.0752	-0.0724	-0.0810	-0.1021	-0.0602
	(0.1037)	(0.1056)	(0.1042)	(0.1121)	(0.1036)
Total aid & FDI interaction	-0.0001	-	-	-	-0.0001
	(0.0001)				(0.0001)
Multilateral aid & FDI interaction	-	-0.0004	-	-	-
		(0.0003)			
Bilateral aid & FDI interaction	-	-	-0.0001	-	-
			(0.0002)		
Technical aid & FDI interaction	-	-	-	0.0007	-
				(0.0019)	
Number of observations	152	152	152	152	152
Number of countries	24	24	24	24	24
R2 (Overall)	0.0677	0.0781	0.0608	0.2613	0.1094
F-Statistics	0.95	1.14	1.16	0.96	-
Wald x2	-	-	-	-	5.05
Reverse Causality Test:	**total aid**	**multi. aid**	**bilat. aid**	**tech. aid**	
Employment rate	5.9906	2.8872	3.1049	-0.2530	-
	(5.6206)	(2.1325)	(3.8031)	(0.9535)	-
R2 (Within)	0.4755	0.6377	0.2610	0.1971	-
F-Statistics	407.54***	259.50***	607.05***	5.42***	-

Estimates with country-specific fixed effects, while in column 5 random effects substituted for fixed effects in tables 5.3-5.8. All coefficient estimates are reported above followed by robust standard errors, adjusted for cluster at country level in parentheses. ***, **, and * denote significance at the 1%, 5% and 10% levels, respectively. All explanatory variables are lagged by one year. The Hausman test is not applicable because the model fails to meet its asymptotic assumptions. For the reverse causality test the labour force participation rate is swapped with total aid, multilateral aid, bilateral aid and technical aid as dependent variables in columns 1-4 where labour force participation rate is used as the independent variable and lagged by one year as well as the other explanatory variables.

Table 5.7 Regressions to Explain Female Employment Rate in Post-Conflict Countries

Variables	**FE 1**	**FE 2**	**FE 3**	**FE 4**	**RE 1**
Tertiary school enrolments	0.2207	0.2052	0.2344	0.2423	0.1691
	(0.2554)	(0.2639)	(0.2546)	(0.2653)	(0.2325)
Total aid (as % GDP)	0.0055	-	-	-	0.0064
	(0.0051)				(0.0052)
Multilateral aid (as %GDP)	-	0.0143	-	-	-
		(0.0110)			
Bilateral aid (as % GDP)	-	-	0.0073	-	-
			(0.0070)		
Technical aid (as % GDP)	-	-	-	-0.0037	-
				(0.0333)	
FDI (as % GDP)	0.0919***	0.0961***	0.0885***	0.00784**	0.0921***
	(0.0296)	(0.0292)	(0.0299)	(0.0333)	(0.0031)
Population growth	-1.1142	-1.0957	-1.0975	-0.9701	-1.0731
	(0.8923)	(0.8616)	(0.8982)	(0.8597)	(0.8463)
Conflict	-0.1600	-0.1631	-0.1668	-0.2049	-0.1305
	(0.1845)	(0.1822)	(0.1877)	(0.2038)	(0.1875)
Total aid & FDI interaction	-0.0003*	-	-	-	-0.0003**
	(0.0002)				(0.0002)
Multilateral aid & FDI interaction	-	-0.0011**	-	-	-
		(0.0005)			
Bilateral aid & FDI interaction	-	-	-0.0004	-	-
			(0.0003)		
Technical aid & FDI interaction	-	-	-	0.0003	-
				(0.0029)	
Number of observations	152	152	152	152	152
Number of countries	24	24	24	24	24
R2 (Overall)	0.2229	0.2031	0.2618	0.3646	0.1572
F-Statistics	2.10*	2.37*	1.99	2.75**	-
Wald x2	-	-	-	-	11.92**
Reverse Causality Test:	**total aid**	**multi. aid**	**bilat. aid**	**tech. aid**	
Female Employment rate	5.0161	2.2288*	2.7858	0.4694	-
	(3.1291)	(1.2647)	(2.1105)	(0.0696)	-
R2 (Within)	0.4803	0.6417	0.2653	0.1956	-
F-Statistics	393.39***	273.11***	602.03***	6.03***	-

Estimates with country-specific fixed effects, while in column 5 random effects substituted for fixed effects in tables 5.3-5.8. All coefficient estimates are reported above followed by robust standard errors, adjusted for cluster at country level in parentheses. ***, **, and * denote significance at the 1%, 5% and 10% levels, respectively. All explanatory variables are lagged by one year. The Hausman test is not applicable because the model fails to meet its asymptotic assumptions. For the reverse causality test the labour force participation rate is swapped with total aid, multilateral aid, bilateral aid and technical aid as dependent variables in columns 1-4 where labour force participation rate is used as the independent variable and lagged by one year as well as the other explanatory variables.

Table 5.8 Regressions to Explain Youth Employment Rate in Post-Conflict Countries

Variables	**FE 1**	**FE 2**	**FE 3**	**FE 4**	**RE 1**
Tertiary school enrolts.	-0.2627*	-0.2689*	-0.2509*	-0.02051	-0.2710**
	(0.1367)	(0.1470)	(0.1319)	(0.1370)	(0.1334)
Total aid (as % GDP)	0.0051	-	-	-	0.0055
	(0.0033)				(0.0036)
Mult. aid (as %GDP)	-	0.0101*	-	-	-
		(0.0054)			
Bilateral aid (as % GDP)	-	-	0.0077	-	-
			(0.0050)		
Technical aid (as % GDP)	-	-	-	0.0773**	-
				(0.0287)	
FDI (as % GDP)	-0.0283	-0.0275	-0.0296	-0.0239	-0.0297
	(0.0233)	(0.0226)	(0.0232)	(0.0213)	(0.0243)
Population growth	0.2782	0.3176	0.2761	0.2019	0.2758
	(0.2603)	(0.2705)	(0.2534)	(0.2351)	(0.2635)
Conflict	-0.2097**	-0.2209**	-0.2099**	-0.2228**	-0.1967**
	(0.0870)	(0.0912)	(0.0858)	(0.1114)	(0.0845)
Total aid & FDI inter	-0.00008	-	-	-	-0.00009
	(0.0001)				(0.0002)
Mult. aid & FDI inter.	-	-0.0002	-	-	-
		(0.0004)			
Bilt. aid & FDI inter.	-	-	-0.0005	-	-
			(0.0003)		
Tech. aid & FDI inter.	-	-	-	3.6606	-
				(0.0015)	
Number of observations	152	152	152	152	152
Number of countries	24	24	24	24	24
R2 (Within)	0.2435	0.2323	0.2413	0.2889	0.2013
F-Statistics	6.22***	4.81***	6.00***	14.84***	-
Wald x2	-	-	-	-	37.26***
Reverse Causality Test:	**total aid**	**multi. Aid**	**bilat. aid**	**tech. aid**	
Youth Employment rate	6.6564*	1.4443	5.3946*	1.1087	-
	(3.3346)	(1.0304)	(2.6702)	(0.7552)	-
R2 (Within)	0.4832	0.6328	0.2795	0.2551	-
F-Statistics	654.87***	343.98***	124.80***	8.65***	-

Estimates with country-specific fixed effects, while in column 5 random effects substituted for fixed effects in tables 5.3-5.8. All coefficient estimates are reported above followed by robust standard errors, adjusted for cluster at country level in parentheses. ***, **, and * denote significance at the 1%, 5% and 10% levels, respectively. All explanatory variables are lagged by one year. The Hausman test is not applicable because the model fails to meet its asymptotic assumptions. For the reverse causality test the labour force participation rate is swapped with total aid, multilateral aid, bilateral aid and technical aid as dependent variables in columns 1-4 where labour force participation rate is used as the independent variable and lagged by one year as well as the other explanatory variables.

5.4.3 Reverse Causality Tests

The likelihood of any reverse causality between foreign aid and the labour market is also examined for the focal post-conflict countries. By way of explanation, on the one hand, it is possible that foreign aid provided could be used to support human capital development (education and health) and other infrastructural projects, which in turn may have an influence on the labour market. On the other hand, the labour market may also influence the inflow of foreign aid to conflict prone societies as this can help to maintain peace and stability. To investigate these issues, reverse causality tests are conducted by swapping the various labour market variables with total aid, multilateral aid, bilateral aid and technical as dependent variables using the country-specific fixed effects. That is, the labour market variables are used as independent variables and lagged by one year. The estimation technique remains the same and the results from these reverse causality tests are presented in Columns 1-4 at the bottom of Tables 5.3-5.8. It is apparent from the findings that the estimated coefficients for overall labour force participation are statistically insignificant across all specifications. Accordingly, no evidence of causality running from this to total aid, multilateral aid, bilateral aid and technical aid emerges.

The coefficients for female labour force participation (in table 5.4) are also statistically insignificant in the regressions for total aid, bilateral aid and technical aid, but are significant for multilateral aid. However it is important to note that the causality running from female labour force participation to multilateral aid is uni-directional and hence, there is no evidence of reverse causality. In the case of youth labour force participation, a causality running from this to technical aid is found as evidenced from the results of the test shown at the bottom of Table 5.5 in Column 3. It also emerges that there is a causality running from technical aid to youth labour force participation. Thus, confirming a reverse causality (bi-directional) between these two variables, but there is no evidence of a causality running from youth labour force participation to total aid, multilateral aid or bilateral aid. The test coefficients on the employment rate in Table 5.6 reveal a similar pattern to that of the overall labour force participation in Table 5.3 and suggest no evidence of a causality running from employment rate to total aid, multilateral aid, bilateral aid or technical aid-see Table 5.6.

A similar trend also holds in the cases of the female employment rate and female labour force participation as depicted in Tables 5.4 and 5.7, respectively. That is, the coefficients on the female employment rate shows no evidence of causal effects on total aid, bilateral aid and technical aid, but there is a statistically significant effect on multilateral aid-see

Table 5.7. However, the causality running from female employment rate to multilateral aid is only uni-directional. In the case of the test results in Table 5.8, there is evidence of causality running from youth employment rate to total aid and bilateral aid, but not the reverse. Moreover, in the other regressions, causality running from youth employment to multilateral aid or technical aid does not emerge. The reverse, however, does reveal a causality running from multilateral aid and technical aid to youth employment thus suggesting a uni-directional relationship for each of these aid variables.

Regarding reverse causality between the labour market and foreign aid, in most cases, no evidence is found. That is, there is no significant reverse association between total labour force participation rates and any aspect of foreign aid (total aid, multilateral aid, bilateral aid and technical aid). Similarly, no reverse relationship is found between total employment rate and these variables of foreign aid-see Table 5.3 and Table 5.6. However, female labour force participation and youth labour force participation rates appear to have cause effect on multilateral aid and technical aid, respectively. Moreover, female employment causes multilateral aid, and youth employment causes total aid and bilateral aid in the focal environments. Also, it is noted that total aid and bilateral aid do not have any causal effect on the labour market. A possible explanation could be that such aid is not targeted towards enhancing the labour market, but rather is for the recovery process of these economies [Collier (2007) and Demekas et al. (2002)].

5.5 Foreign Aid and the Labour Market: A Panel Co-integration Approach

5.5.1 Methodology

This section examines the long-run relationship between foreign aid and the employment rate in post-conflict environments using the error correction based panel co-integration approach of Persyn and Westerlund (2008). The rationale for using this approach is as follows: Firstly, it allows for cross-sectional dependence by means of bootstrapping. Secondly, it can capture long-run and short-term dynamics and thirdly, it can deal with intercept and trend parameters. Fourth, the approach can handle serially correlated error terms, and can be observed with no special factor restriction and finally, increased power may be gained by accounting for both time series and cross-sectional dimensions. The relationship is examined following studies by Herzer and Grimm (2012), and Domette and Fromentin (2013) using the following model:

$$ER_{it} = \alpha_i + \delta_i t + \beta AID_{it} + \varepsilon_{it} \qquad (2)$$

where ER_{it} is the employment rate in country i at time t, AID_{it} is the amount of foreign aid (as a percentage of GDP) received by country i at time t, α_i is country-specific fixed

effects, $\delta_i t$ denotes time trends and ε_{it} is the error term. Prior to estimating the long-run relationship between foreign aid and the employment rate, the panel unit root test proposed by Im-Pesaran and Shin (2003)- hereafter IPS is performed to examine the order of integration of the series, which is based on the Augmented Dickey-Fuller (ADF) regression of the cross-sectional units:

$$\Delta x_{it} = w'_{it}\gamma + \rho_i x_{it-1} + \sum_{j=1}^{\rho i} \varphi ij \, \Delta x_{it-j} + \varepsilon_{it} \qquad (3)$$

Where ρ_i represents the lag order and w'_{it} the deterministic term. The IPS test has a null hypothesis of a unit root $H_0 : \rho_i = 0$ for all i and the alternative that at least one of the individual series in the panel is stationary $H_1 : \rho_i < 0$ for at least one$i$. Moreover, the IPS test assumes cross-sectional independence. However, if the error terms (ε_{it}), are not independent across countries (i), the test may lead to spurious regression [Herzer and Grimm (2012)].

To account for this, the Cross-Sectional Augmented IPS (CIPS) proposed by Pesaran (2007) is used. This permits cross-sectional dependence by using the augmented ADF regression with the cross-sectional averages of lagged levels and first difference of the individual series in the panel [Pesaran (2007)]. The CIPS statistic is described as the average of the Cross-Sectional Augmented ADF (CADF) statistics. Prior to estimating this test statistic, the cross-sectional dependence test proposed by Breusch and Pagan (1980) is performed, which allows for determination as to whether the data are cross-sectionally correlated. The test has a null hypothesis of cross-sectional independence against the alternative of cross-sectional dependence and can be effective if the time period (T) is greater than the number of countries (N). Table 5.9 presents the result of the cross-sectional dependence LM test which indicates rejection of the null hypothesis of cross-sectional independence. Thus, justifying the use of the CIPS test statistic as this allows for cross-sectional dependence-see Column 2 of Table 5.10. This result is not that surprising, because these countries' economies have similar features (in terms of the structure of their economies) owing to the conflict prone characteristics that they share and most tend to come from the same region.

Test for cross-sectional dependence

Table 5.9: Cross-Sectional Dependence (LM) Test

	Breusch-Pagan LM Test
Panel	3229.17***

Notes: *** denotes significance at 1% Level

Table 5.10 presents both the IPS and CIPS test statistics, with Column 1 showing those for the IPS test statistics, whilst Column 2 gives the CIPS test outcomes. According to these results, both the IPS and CIPS test statistics suggest the presence of a unit root in levels-see Table 5.10. However, using the first difference of the employment rate and foreign aid variables, both sets of test statistics suggest a rejection of the unit root for the alternative, thus confirming the order of integration of employment rate and foreign aid as I(1) variables.

Table 5.10: Panel Unit Root Tests

Variables	**Deterministic Terms**	**IPS Statistics**	**CIPS Statistics**
Levels:			
ER_{it}	c, t	-1.60	-1.95
AID_{it}	c, t	-2.22	-1.83
First Differences:			
ΔER_{it}	c	-4.69***	-4.34***
ΔAID_{it}	c	-6.64***	-5.88***

Notes: *** denotes significance at the 1% Level. The Dickey Fuller regression for employment rate and foreign aid in levels is augmented with a constant and trend (c and t) and for their first differences a constant (c) is employed. The IPS statistics is distributed as N (0, 1) and to adjust for serial correlation four lags are selected. The 5% and 1% critical values for the CIPS intercept and trend are -2.650 and 2.780 respectively, and for the intercept only are -2.150 and -2.300, respectively.

5.5.2 Panel Co-integration Test

Since the first difference of both employment rate and foreign aid are I (1) variables, the co-integration test to examine their long-run relationship can be performed using Westerlund (2007) and Persyn and Westerlund (2008) error-correction based co-integration for panel data. The test observes four panel co-integration tests, which are based on structural instead of residual based dynamics and it assumes the following:

$$\Delta ER_{it} = \delta'_i d_t + \alpha_i \left(ER_{it-1} - \beta'_i AID_{it-1}\right) + \sum_{j=1}^{\rho i} \alpha ij\, \Delta ER_{it-j} + \sum_{j=-qi}^{\rho i} \gamma ij\, \Delta AID_{it-j} + \varepsilon_{it} \quad (4)$$

In order to account for cross-sectional dependence the bootstrap approach is used and hence equation (4) is represented as follows:

$$\Delta ER_{it} = \delta'_i d_t + \alpha_i ER_{it-1} + \lambda'_i AID_{it-1} + \sum_{j=1}^{\rho i} \alpha ij\, \Delta ER_{it-j} + \sum_{j=-qi}^{\rho i} \gamma ij\, \Delta AID_{it-j} + \varepsilon_{it} \quad (5)$$

where $\alpha_i$is the speed of adjustment term (error correction) back to the equilibrium relationship$\left(ER_{it-1} - \beta'_i AID_{it-1}\right)$. However, it is important to note that if the speed of adjustment is less than zero: $\alpha_i < 0$ it implies that there is error correction and this indicates a co-integrating equilibrium relationship between the employment rate (ER_{it}) and foreign aid (AID_{it}). On the other hand, a speed of adjustment equal to zero: $\alpha_i = 0$ implies no error correction and hence no cointegration between the two variables [employment rate (ER_{it}) and foreign aid (AID_{it})]. Therefore, the test has a null hypothesis of no cointegration against the alternative that the panel is co-integrated as a whole or at least one of the units is co-integrated. Taking from equations (4) and (5), a test for co-integration equilibrium relationship between employment rate and foreign aid is observed, following Westerlund (2007) and Persyn and Westerlund (2008). The Akaike Information Criteria (AIC) are allowed to choose the optimal lag and lead lengths, while the Bartlett Kernel window width is set using the rule: $4(\frac{T}{100})^{2/9} \approx 3$ [see Westerlund (2007), Persyn and Westerlund (2008)].

Table 5.11 reports the results of the panel co-integration tests. Since our result in Table 5.9 indicates the presence of cross-sectional dependence, we also use the bootstrap means to account for this. In Table 5.11 we present the calculated values of the error correction statistics, the asymptotic and the bootstrap p-values in columns 1, 2 and 3, respectively. Using the asymptotic p-values in column 2 of Table 5.11, it can be observed that out of the four tests, only one suggests a rejection of the null hypothesis at the 1 % level. This implies that the panel is not co-integrated as a whole, but at least one of the units is. However, taking into account cross-section dependence using the bootstrap robust p-values, it is not possible to reject the null hypothesis of no co-integration for all the four tests. Based on both the asymptotic and bootstrap robust p-values, it can be observed that the test results

are therefore mixed. On the one hand, there is evidence of a long-run relationship between employment rate and foreign aid at least in one of the units, while on the other hand, the tests suggest no co-integrating equilibrium relationship between the two variables in all the four panels. A possible explanation for this is that aid in post-conflict countries tends to reach a high peak especially in the immediate aftermath of violent conflict, but tapers-off after a few years [see Collier (2004, 2006), Demekas et al. (2002)]. Another possible reason may also be that aid is more targeted towards the recovery process than the provision of employment and hence the weak evidence of a long-run relationship between employment rate and foreign aid in these economies.

Table 5.11: Panel Co-integration Tests

Test	**Values**	**P-Values**	**Bootstrap robust P-Values**
	(1)	**(2)**	**(3)**
Gt	-2.833	0.002	-
Ga	-11.207	0.695	-
Pt	-6.638	1.000	-
Pa	-7.314	0.911	-
Tests based on bootstrap distribution:			
Test	**Values**	**P-Values**	**Bootstrap robust P-Values**
Gt	-1.843	0.999	0.933
Ga	-6.658	1.000	0.938
Pt	-7.025	1.000	0.930
Pa	-4.990	0.999	0.920

All tests are performed with a constant and trend in the test regression. The Akaike Criterion was allowed to choose the optimal lag and lead lengths while the Bartlett Kernel window width is set using the rule: $4(\frac{T}{100})^{2/9} \approx 3$. We use 400 bootstrap replications.

5.6 Chapter Summary

This chapter has examined the relationship between foreign aid and labour markets based on a panel of 24 post-conflict countries over the period 1980 to 2010. The study used total labour force participation rate, female labour force participation rate, youth labour force participation rate, total employment rate, female employment rate and youth employment rate to measure labour market performance. Despite the vast interest in foreign aid, there is little work examining the relationship between such aid and labour markets in post-conflict economies and, hence, there remains a major gap filled in the literature.

This research differs from previous studies on foreign aid in several ways: First, the relationship between total aid and the above labour market variables in post-conflict environments have been estimated using fixed effects and random effects regressions. Second, in order to minimize aggregation bias, the relationship between disaggregated aid (multilateral aid, bilateral aid and technical aid) and labour market performance has been assessed. No previous studies have employed this approach to the best of this researcher's knowledge. Third, we also employed reverse causality tests to capture any reverse causality between foreign aid and the labour market variables. Again, no previous work has incorporated this method to identify any causality running in the case of these variables in post-conflict environments. Lastly, we estimated the long-run relationship between foreign aid and employment rate using an error correction based panel co-integration approach by Westerlund (2007) and Persyn and Westerlund (2008). Prior to this, the time series properties of the variables were assessed with the Im-Pesaran and Shin (2003) panel unit root test and the cross-sectional dependence (LM) test of Breusch and Pagan (1980), followed by the Cross-Sectional Augmented IPS (CIPS) test proposed by Pesaran (2007).

Having adopted a fixed effects regression approach, the results suggest that there is positive relationship between tertiary school enrolments and overall labour force participation, on the one hand, and female labour force participation, on the other hand. The magnitude of the effect is large relative to that for the random effect, which implies that an increase in tertiary school enrolments is associated with higher labour force participation among total and female working-age populations in post conflict economies.

In addition, using both the fixed effects and random effects regressions it has been found that foreign direct investment has a positive and significant relationship with labour force participation among the total and female working-age populations in these economies. These findings corroborate with previous studies on labour force participation and female employment [(see, for example, Miriam et al (2012) and Astrid (2006)]. The estimates also show that conflict has a negative and significant effect on both labour force participation and employment among the young working-age group.

The results also reveal that technical aid has a positive and significant relationship with labour force participation and employment among the young working-age population. Multilateral aid has also been found as having a positive relationship with employment among the young working-age group. In addition, an interaction term between foreign and foreign direct investment was used to measure the indirect effect on labour market. The findings regarding this reveal that total aid, multilateral aid and bilateral aid have a negative and statistically significant effects on the overall and female labour force

participation rates, on the one hand, while total aid and technical aid have similar effects on the young working-age population. Also, Multilateral Aid and Total Aid have emerged as having a negative and significant relationship with employment among the female working-age population.

It is apparent from the results that there is no evidence of causality running from overall labour force participation to total aid, multilateral aid, bilateral aid or technical aid. In addition, no evidence has been found of causality running from the employment rate to these aid variables. However, significant causality running from Female Labour Force Participation to multilateral aid and from female employment to multilateral aid has emerged, but in neither case does the reverse does hold. In the case of youth labour force participation, there is evidence of reverse causality between this and technical aid (bi-directional).

Using the unit root tests, the results indicate that there is a presence of unit root in levels for employment rate and total aid. However, those for the first difference of employment rates and total aid suggest rejection of the unit root for the alternative, thus confirming the order of integration of the employment rate and total aid as I (1) variables. Using the error-correction based co-integration tests of Westerlund (2007) and Persyn and Westerlund (2008), the results show that there is weak evidence of a co-integrating equilibrium relationship between employment rate and total aid. A possible explanation for this is that aid in post-conflict countries tends to reach a high peak in the immediate aftermath of violent conflict and tapers-off after a few years. Another possible reason may also be that aid is more targeted towards the recovery process than the provision of employment and hence the weak evidence of a long-run relationship between employment rate and foreign aid in these economies.

Appendix 5.1: List of Conflict-Affected Countries

No	Country
1	Angola
2	Sierra Leone
3	Burundi
4	Liberia
5	Chad
6	Côte d'Ivoire
7	Mozambique
8	Ethiopia
9	Rwanda
10	Guinea-Bissau
11	Namibia
12	Sudan
13	Democratic Republic of Congo
14	Congo Republic
15	Uganda
16	Indonesia
17	Papua New Guinea
18	Nepal
19	Sri Lanka
20	Georgia
21	Tajikistan
22	El Salvador
23	Guatemala
24	Nicaragua

Source: UNDP Report (2008).

Chapter 6

6.0 War Victims' Attitudes towards the Peace Process in Sierra Leone - An Ordered Probit Approach.

6.1 Introduction

This chapter provides an analysis of war victims' (war wounded and war widows) attitudes towards the peace process in post-conflict Sierra Leone. It also explores their perception of the role of foreign aid in the peace building process. Foreign aid geared towards post conflict societies can be crucial for peace building as well as for economic recovery [Collier (2006) (2007)].

Academic studies on peace attitudes (from the peace and conflict literature) by various scholars have been undertaken using opinion survey data. Regarding which, researchers such as Hazlett (2012), Vinck and Pham (2009), Bellow and Miguel (2009), Georgiades (2007), Barak (2005), Hermann et al. (2002), Nachtwey et al. (2002), Collier and Hoeffler (2000, 2002), Mi Ari (1999), Wilcox et al. (1996), Gwartney-Gibbs et al. (1991), and Dutter et al. (1976) have all made significant contributions to the peace and conflict literature. For instance, Hazlett (2012) examined the effect of exposure to direct violence on attitudes towards peace among Darfurian refugees in Eastern Chad using survey data. Hazlett's findings suggest that those refugees exposed to direct violence are 10 percentage more likely to live in peace with former enemies and members of other tribes, as well as less likely to put government soldiers to death than those who have not been affected. The possible reason for this, as put forward in chapter two, is that those directly affected by violence are more likely to have an aversion to its return than those who have not experienced the horror that it entails.

Vinck and Pham (2009) used cross-sectional survey data to examine displaced persons intentions to move back to their place of origin and their attitudes towards former combatants in Northern Uganda. They elicited that social services (access to water and land) and livelihood opportunities (job opportunities) at the current place of living were associated with the decisions to move among internally displaced persons (IDP). Furthermore, they found that although over two-thirds of IDP were comfortable with former combatants (had positive attitude towards former combatants), this was not the case in situations that required direct interactions, such as being in the same church or market with former combatants. Bellow and Miguel (2009) used household data to examine war and local collective action in Sierra Leone. The findings from their study indicate that households who directly experienced violent conflict are more likely to perform collective

actions, such as attending community meetings, joining political parties and voting at elections.

Georgiades (2007) used public opinion survey data and found that 45 percent of Greek-Cypriots believed they could peacefully co-exist with Turkish-Cypriots. However, this researcher also found that, on average, 43 percent of the former ethnic group were not prepared to be reunited with the latter. Hermann et al. (2002) examined Israeli-Jewish attitudes towards the Oslo Peace Process using multivariate regression analyses and discovered that those with higher levels of education, of older age and women had the most positive attitudes towards the Oslo peace process. Nachtwey et al. (2002) evaluated the degree to which economic orientation explains attitudes towards peace among Palestinians and Israelis after the 1993 Oslo Accord. Their findings infer that there is a positive correlation between improved economic conditions and attitudes towards peace. Collier and Hoeffler (2002a) examined the effects of aid, policy and peace on the risk of civil war, with their findings suggesting that an increase in foreign aid indirectly reduces the risk of conflict through its impact on growth.

Mi Ari (1999) employed multivariate regression analysis to examine attitudes of Palestinian students towards cultural normalisation with Israel and discovered that support for this is significantly associated with social class or parent's occupation. More specifically, his findings suggest that students from the working class are more supportive of cooperation with Israelis than those from other classes. Wilcox et al. (1996) explored the gender gap in attitudes towards the Gulf War from across-national perspective using both multivariate and bivariate regression analyses and found a statistically significant difference between women and men in terms of their attitudes towards the Gulf War. That is, women in the most developed and developing cities are less supportive of military action than men. Similarly, Gwartney-Gibbs and Lach (1991) used multivariate regression analysis to explore the gender differences in attitudes towards nuclear war and discovered that women have significantly more pessimistic attitudes towards such war than men. Dutter et al. (1979) used survey data to examine the attitudes of Israeli youths towards the Middle East conflict. The evidence from their study suggests that there is a positive correlation between socio-economic status and political attitudes among this cohort.

This study contributes a novel approach to peace and conflict investigation in the following ways: (1) through the methodology employed (2) in terms of the crucial issues addressed by the study and (3) by providing significant contributions to knowledge, which are detailed in the concluding section of this chapter.

As mentioned above, the first novel contribution hinges around the methodology used. This study adds to extant work by employing an ordered probit estimation technique to examine war victims' (war wounded and war widows) attitudes toward the peace process in Sierra Leone. Most studies on peace attitudes have used bivariate regression, multivariate regression analysis or linear probability models. Hence, to the best of my knowledge, this study is the first to have examined war victims' attitudes toward peace using an ordered probit approach, followed by a linear probability model. An ordered probit is employed for the current study because it has a number of advantages. (a) It is appropriate for analysing data sets that are categorical as well as those involving ordered dependent variables [Xie et al. (2009)]. (b) Attitudes towards the peace process can be associated with many factors and since they exhibit ordering, which enhances labels, the use of ordered probit can therefore be useful in modelling such an association. (c) It can be useful for analysing attitude scale models as it can "enhance the reflection of both the intensity and direction of the opinion of respondents" (in this case, war victims) [Long and Freese (2006 pp.137)]. (d) An ordered probit can also be beneficial for analysing micro-level data [Basile et al. (2003)] as it can take into account both the discrete and ordinal nature of the dependent variable [Bennell et al. (2006)]. (e) It can be estimated using several software packages, as well as being theoretically useful relative to other models for analysing data that are discrete or ordinal in nature [Kockelman et al. (2002)]. Finally, it can enhance the estimation of the marginal effects of the explanatory variables on the dependent variable, which in this case reveals the probability of war victims' attitudes towards the peace process when the explanatory variable changes by one unit.

Moreover, the study provides an analysis using unique survey data to explore the attitudes of war victims (war widows and war wounded) towards the peace process with special reference to post-conflict Sierra Leone. To the best knowledge of this researcher, this is the first work to have examined war victims' attitudes towards peace since the outset of the civil war in Sierra Leone. The use of this unique survey data offers the opportunity to carefully investigate variables that might have an association with attitudes towards peace among war victims in that country. An understanding of these factors could be crucial to mitigating the potential risk for conflict re-occurrence and for a sustainable peace building, which is essential for subsequent economic development. In addition, the use of this new survey data gives agency to some of those most affected (war victims) by collecting their views regarding the necessary factors for sustainable peace building.

The second novel contribution is in terms of the crucial issues addressed by the study. An investigation of war victims' attitudes toward the peace process is salient for the following reasons: First, several organisations have expressed the view that the effect on victims in the aftermath of war deserves more attention than hitherto. In this regard, they have started to refocus their activities on addressing the issues of war victims because these are seen as crucial for peace and development to prosper, and hence avoid further conflict. Second, in the context of Sierra Leone, little is known about war victims' attitudes towards the peace process and research of such a nature will help to identify the issues which are essential to our understanding of post-conflict recovery and the development process. That is, knowing what influences war victims' attitudes towards peace is crucial for mitigating the potential risk of conflict re-occurrence. Third, while the focus is only on Sierra Leonean war victims, it provides important insight for those seeking to comprehend attitudes towards peace among war victims in countries emerging from conflict. Fourth, the findings will help policy-makers, development practitioners as well as donor agencies to understand conflict sensitive issues in conflict-affected economies. Fifth, the outcomes of this study have important policy implications for policy-makers, practitioners and donor agencies on how to achieve a sustainable peace in countries emerging from conflict. Sixth, this study contributes to extant work by capturing issues that are closely related to the feelings of those most affected, which will help policy-makers to develop coherent programmes that promote peace building as well as an awareness of the implications for long term economic development planning in such societies. The third novel contribution to knowledge relates to the major findings of the current study, which are detailed in the concluding section of this chapter.

The chapter is subdivided as follows: Section 6.2 gives an overview of the war and the peace process in Sierra Leone with emphasis on the Lomé Peace Accord of 1999 in Section 6.3. Section 6.4 describes the war affected population, focusing on the war wounded and war widows, whilst Section 6.5 focuses on the concept of peace. Section 6.6 explores the role of foreign aid in the peace process, addressing the socio-economic needs of the war affected groups (war wounded and war widows) and the peace building initiatives, such as the Demobilization Disarmament and Reintegration (DDR) and Institutional Reforms and Reconciliation. Section 6.7 presents the methodology and estimation technique used for this chapter, whilst Section 6.8 presents discussion of the results, followed by the concluding remarks in Section 6.9.

6.2 An Overview of the Sierra Leone Civil War and the Peace Process

This section gives an overview of some of the explanations for the causes of the war, a description of its duration and the challenges of the peace process in Sierra Leone. In March 1991, the Revolutionary United Front (RUF), led by an army corporal, Foday Sankoh, launched a rebel incursion from the South and East of Sierra Leone. Several reasons have been advanced as to the causes of the war.

6.2.1 Causes of the Civil War

An understanding of the causes of civil war is vital in any country emerging from violent conflict, for knowledge of these can help in designing effective peace building initiatives in post-conflict environments. In the context of Sierra Leone, there have been various explanations as to the causes of the war, which revolve around political, social, and economic factors [Reno (1995), Smillie et al. (2000), Truth and Reconciliation Commission report (2004), Davies (2007b)]. The Truth and Reconciliation Commission (TRC) Report (2004) highlights some of these cause put forward during hearings involving victims and perpetrators of the war. According to this report, greed, corruption and bad governance were identified as the primary reasons of the war. Other important include marginalized youths, abuse of power by chiefs, regional and ethnic rivalry, injustice and suppression of opposition, lack of democracy and participation in decision making, poverty and a high rate of youth unemployment [TRC report (2004)].

6.2.1.1 Political and Social Factors that led to the War

Key political and social explanations for the war include poor governance as well as increased rural and youth marginalization.

Poor Governance: Poor governance in the form of civil and political repression has been one of the primary factors identified as leading to the onset of the war [Rashid (1997), Davies (2007b) and TRC Report (2004)]. The ruling All Peoples Congress (APC) Party's candidates in some regions were elected unopposed at parliamentary elections, because those wishing to oppose them could not obtain the necessary approval to stand from the authorities [Davies (2007b)]. Such action, which denied popular opposition candidates' victory served as a recipe for election violence, rebellion, killings and grievances among supporters of rival candidates or potential ones [Davies (2007b)]. Subsequently, increasing political repression and poor governance led to state collapse [Reno (1995), Smillie et al. (2000) and Davies (2007b)]. Poor governance has not only been attributed to election malpractice, for the three arms of government executive, legislative and civil service, were all also identified as being causes for concern [TRC (2004)].

Increased Rural Marginalisation: The increased rural marginalization as a result of over centralization of power and activities by the central government led to high rate of youth unemployment [Maxted (2003)]. Moreover, the decentralized local system of governance was abolished causing serious abuse of power by local chiefs [Richards (2005)]. That is, there were activities such as unjust land tenure, forced labour, excessive cash fines as well as marriage and customary laws carried out by elected chiefs, which led to serious grievances against some of them and the establishment [Keen (2005), Peters (2006), Richards (2005) and Richard et al. (2004)]. Subsequently, this contributed to increased youth migration to urban towns and mining areas, which served as a source for recruitment against the establishment [Richard (2005), Peter (2006), Keen (2005) and Maxted (2003)].Finally, the conduct of paramount chieftaincy elections in rural areas, which are held to elect chiefs from ruling family members, led to great divisions among the potential candidates and government interference meant that unsuitable ones were elected in many cases, resulting in rebellion by large sections of the population [Keen (2005)].

Youth Marginalization: The social element of a rebellious attitude amongst some youths (females and male within the 18-35 years age bracket) was as a result of their being marginalized from the decision making process and governance [Davies (2000 and 2007b) and Rashid (1997)]. Many saw themselves having no access to employment opportunities and political participation (that is, they were marginalized from contesting for parliamentary positions, such as honourable Member of Parliament and district counselor positions) [Rashid (1997) and Davies (2007b)]. This marginalization created incentives for youths to become involved in rebellion as they were resentful about the political establishment (ibid). Moreover, the youth population was the fastest growing demographic group estimated at about 55 percent of the total population by 2002 [Ministry of Youths and Sports (2002)]. In terms of education, youths also suffered marginalization in that for most this was seen as a privilege and not a right. This was for two reasons: First, education was expensive and only politicians and the affluent were able to pay for their children to receive it. Second, the Sierra Leone grant aid (scholarship) for education (meant for all Sierra Leoneans) was mostly accorded to children of politicians and the affluent, whilst the poor and youths, who constituted the largest proportion of the population were, by and large, excluded from this opportunity. This notion of education being a privilege and not a right, led into high dropouts rates for economic reasons, which contributed to the high illiteracy rate in the country [Maxted (2003), Peters (2006) and Richards (2005)].

Regional and Ethnic Rivalry: Ethnic regional rivalry between the two prominent political parties-The All Peoples Congress (APC) and the Sierra Leone Peoples' Party (SLPP) especially after independence contributed to the tension and violence in the country [Davies 2007b)]. The Temnes and Mendes constitute the two largest ethnic groupings in Sierra Leone from the north and south-east, respectively and the scramble for power between the two often what underlay outbreaks of hostilities [Davies (2000 and 2007b) and Maxted (2003)]. The APC party was seen as a northern party with support from the Temne ethnic group, whilst the SLPP was perceived as being a south-eastern party with support from the Mende ethnic grouping.

6.2.1.2 Economic Factors

Diamonds and Corruption: Although diamonds were not a main cause of the war, they played a significant role in sustaining it [Davies (2007b)]. That is, they were regarded as secondary drivers of the war, for increased youth unemployment and horizontal inequality (unequal regional endowment of resources) contributed to the migration of youths to diamond mining areas, which served as a source for easy recruitment to the rebellion [Peters (2006) and Davies (2007b)]. Further, corruption, economic mismanagement, bribery and government non accountability were deemed to have also been catalysts for the war in Sierra Leone [Davies (2007b) and TRC Report (2004)].

6.3 The Peace Process

By 2002, the war had already registered untold suffering and the death of between 70,000 to 75,000 people [Sawyer (2008) and Kai Kai (1999)]. In addition, thousands of people including women and children were made homeless, widowed, raped, or recruited as combatants. More than 600 became amputees and over half of the population became internally displaced with others becoming refugees in neighbouring countries [Lord (2000)]. Moreover, the war unleashed collateral damage on the socio-economic structures and institutions already bewildered state of Sierra Leone [Zack-William (2012)].

The escalation and complexity surrounding the nature and conduct of the war raised many difficulties in resolving the conflict. To this end, international effort was sought by the then government to support the restoration of peace and security that had eluded the country since 1991. This resulted in wide range of help from neighbouring countries, the Economic Community of West African States (ECOWAS), the United Nations (UN), Executive Outcome (a private security firm from South Africa), the United Kingdom and other allies (e.g. USA and Canada), who all provided much needed financial and technical support to

restore peace and security [Keen 2005)]. Internally, the incumbent government had to work closely with civil society groups, such as the Sierra Leone Teachers Union (SLTU), Labour Congress, Campaign for Good Governance, Movement for the Restoration of Democracy, Inter-religious council (IRC) and local militia groups (Kamajors, Donsos, Gbetis, Kapras, and Tamaborahs) in order to restore peace.

However, despite the internal and international efforts aimed at restoring peace and security, the war continued unabated. The Revolutionary United Front (RUF) adopted a guerrilla war-fare pattern, fighting through jungles and forests, engaging in frequent ambushes along main highways, hacking off hands and limbs, looting and destroying properties, carrying out wide spread rape, and indiscriminately committing all forms of violence acts against women and children [Gberia 2005)]. By 1995, it became apparent that the war could not be won by military means by the then government and its allies, so another alternative measure in the form of dialogue with the RUF leadership was sought. By 1996, the National Provisional Ruling Council (NPRC) military government through the international community (OAU, Commonwealth, ECOWAS, and UN) had face-to-face contact for the first time with the RUF leadership in Abidjan (Ivory Coast), which led to the signing of the Abidjan Peace Accord in November 1996 by the civilian government of President Kabah.

The Abidjan Peace Accord did not last long as both sides of the conflict refused to accept its terms and conditions and there was a resumption of hostilities by the RUF [Gberia (2005) and Penfold (2012)]. Subsequently, in May 1997 the Sierra Leone Peoples Party (SLPP) government of president Kabah was violently overthrown by a group of soldiers, who accused the president of putting the interests of the local civil militia (Kamajors) first, rather than those of the constitutionally recognised army [Bundu 2001)]. The outcome of the coup saw the formation of the Armed Forces Revolutionary Council (AFRC) led by Major Johnny Paul Koroma which ruled Sierra Leone for a period of 9 months, during which time gross violations of human rights by the AFRC in consort with the RUF were perpetrated [Zack-William 1997)]. In 1998, the AFRC was driven out of the capital Freetown by the Nigerian-led ECOMOG force (Economic Community of West African States Monitoring Group) and loyal troops of the Republic of Sierra Leone Military Forces (RSLMF). Democracy was restored with the return of President Kabah and his cabinet [Penfold 2012)]. Notwithstanding these events, the war continued unabated, particularly in the provincial areas and finally by January 1999 the capital of Freetown witnessed the

invasion of the RUF which resulted in 60 per cent of the capital being in its hands and renegade soldiers of the AFRC [Penfold 2012)].

6.3.1 The Lomé Peace Accord

The invasion of Freetown and the atrocities associated with it forced President Kabbah and the international community to negotiate peace with the RUF at all costs [Penfold (2012) and Berewa (2011)]. In July 1999, after months of negotiation in Lomé (Togo), the Lomé Peace Accord was finally signed between President Kabah and Foday Sankah, Leader of the RUF. This accord became the framework for restoring peace and security in Sierra Leone as well as the platform for the future consolidation of peace and development [Lomé Peace Accord Report (1999)].

6.4 War Affected Population

The outcomes of war affect the lives of people in many ways. According to the Geneva Convention of 1949, the war affected population are those civilians not participating in combat, but who are nevertheless affected by the conduct and consequence of armed violence [ICRC (2010)]. In the context of Sierra Leone, the war affected population includes: amputees, victims of sexual violence, war wounded, child victims and war widows.

This study, as mentioned above, focuses on two groups: war wounded and war widows. The reason for selecting these two groups is due to the fact that there has been no previous empirical research on these groups of people in that country. It is estimated that there are at least 4,000 individuals who suffered direct (deliberate) amputation as a result of the war and presently there are 1,600 amputees still alive [SLTRC Report (2004)]. According to the TRC report, women and girls suffered the greatest effects of the war [TRC report (2004)]. In addition, it is estimated that there are over 20,000 wounded as a result of the war in Sierra Leone [IRIN-UN Office for the Coordination of Humanitarian Affairs (2013)]. The total estimated population of war victims in Sierra Leone is 55,500 (Suma and Correa 2009) and 68 percent of this total were either war wounded or war widows. Given that the population of the country was about 5.6 million at the time of the fieldwork, this means that war wounded and war widows represented approximately 1% of the population. Such statistics demonstrate the imperative need to research these two categories of victims (war wounded and war widows) in relation to the Sierra Leone peace process.

6.4.1 War Wounded

According to the SLTRC report 2004, the war wounded are "persons who have become temporarily or permanently physically incapacitated as a result of violent conflict other than through amputation" [SLTRC (2004 pp.249]). However, for the purpose of this study, amputees are included as part of this category. Therefore, war wounded includes civilians who sustained wounds or amputation which enables them to be physically disabled either for a short or long period as a result of the civil war. "Amputation refers to the cutting-off of some part of the human body. It can be unintentional (indirect), occurring by accident as a result of vehicle or gunshot wounds, or intentional (direct) when it is deliberately inflicted upon the person with the aim of creating terror or seeking revenge" [SLTRC (2004) appendix 5, pp. 1].

6.4.2 War Widows

This category of war widows refer to "women whose husbands or partners have died as a result of the war and as a result have become the main earner for their family" [SLTRC (2004 pp.250)]. The war wounded and war widows during and after the conflicts have been exposed to various forms of social, economic and physical conditions that have affected their welfare. For instance, the war wounded often have chronic conditions or other forms of injury which limits their ability and potential to meet their socio-economic needs. Moreover, due to their physical conditions, for their livelihoods they may depend on the government, their families and or aid agencies. War widows find themselves in the state of being single parents with the task of catering for their families' socio-economic needs (food, shelter, education, clothing and health). Furthermore, these groups are affected by the trauma and loss associated with war, which can have a major detrimental impact on the social interaction and networking in their respective societies. The survey on war widows only includes women and not men, because the latter were used as combatants in the frontline, which led to most being either killed in battle or sustaining severe injuries, thus becoming war wounded or amputees. Moreover, because of NACSA's micro credit programme, women who are the main earners of their family registered with the organisation in record numbers in order to have access to the credit for small scale business and to meet their socio-economic needs as single parents. This explains why the war widows registered under the NACSA programme have almost exclusively been women.

6.5 The Concept of Peace

There are various shades of opinion by peace scholars regarding the concept of peace. To those like Bangura and Hopwood (2011), it means a world free of violent conflict owing to

ethnic, cultural, religious or political differences, whilst for others it also involves the promotion of democracy, justice and human rights.

Elias and Turpin (1994) define it as the absence of war or direct violence. These definitions imply that peace indicates stability and solidarity aimed at promoting social justice amongst individuals and groups in society. Furthermore, peace entails the protection of civil and political rights and the absence of structural violence. Sociological scholars have also put forward various theories of peace with the aim of enhancing an understanding of the concept. Proponents of the Human Needs Peace Theory take the view that it refers to basic human needs (shelter, food and clothing) being provided for individuals [Burton (1990)], whereas 'Conflict Transformation Theory exponents' see it as the participation of ordinary people in their own affairs and the society [Lederach (1997)]. Similarly, under 'Empowerment Theory', it is argued that peace involves the encouragement of people in peace building initiatives within their society [Ferraro (2003)]. 'Social Justice Theory' holds that it involves creating opportunities for oppressed people to enjoy freedom and justice in an amicable way devoid of violence and social restrictions [Freire (1972)]. It can be seen that the common notion within all these theories is that peace pertains to a society where people have the opportunity to enjoy their freedom without any form of violence or deprivation by any group or institution.

Within the context of Sierra Leone, the quest for peace was the desire of the population. The reason for this is attributed to the gruesome nature of the civil war, which registered tremendous suffering on the lives of people and wanton destruction of property. The signing of the Lomé Peace Accord was an opportunity to fulfil the quest for peace. However, it was greeted with mixed feelings by the different stakeholders in Sierra Leone society, particularly the civil society groups, the war wounded and war widows. It has been argued that the reason for this is the fact that these groups of people saw the terms and conditions within the Lomé Accord as a way of compensating the RUF, who they still view as the key perpetrators of the conflict [Panfold (2012)].

6.6 The Role of Foreign Aid in the Peace Process

This section explores the role of foreign aid in the peace process, by considering the socio-economic needs of the war affected population and the peace building initiatives, such as the Demobilization Disarmament and Reintegration (DDR), institutional reforms and reconciliation. Sierra Leone has not only been a post-conflict country, but also heavily donor driven as evidenced from the UNDP report 2006.

6.6.1 Aid and the Socio-Economic needs of the War Affected Population

The aftermath of civil war inflicted severe socio- economic consequences on the country and in particular on the war affected population or war victims. These categories of people are forced to surmount to the trauma they have suffered, whilst at the same time facing the challenge of how to survive in a society that has been affected by war, where the socio-economic and human capital are by and large non-functional **[**ILO, (2010)]. Bakar and May (2004) claimed that the civil war in Sierra Leone created a high level of poverty with weak state institutions incapable of delivering and meeting the needs of the war affected population. Such a situation, as this author argued, created a total of 500,000 Sierra Leonean refugees with thousands more left internally displaced, more than 200,000 women subjected to sexual violence, 72,000 ex-combatants requiring reintegration into their communities, more than 250 town and villages destroyed and several social services and economic structures requiring rebuilding to ensure better conditions of living for the war affected population.

In the context of post-conflict societies, there is always the problem of insecurity and a weak economy incapable of absorbing the needs of large numbers of war affected people. This view is shared by the ILO report (2010), which affirms that a country emerging from civil war or violent and repressive rule is faced with reduced productive capacities and livelihood, destroyed infrastructure and community service, collapsed markets, inflation and wide spread unemployment. As regards the details, the consequences of the civil war in Sierra Leone on the war affected population were an increase in socio-economic needs in the form of food, water, medical care and shelter so as to address malnutrition, wounds, torture and trauma [Perrin, (1998)]. Moreover, health services and collapse of social networks further adversely affected the lives of individuals [Perrin, (1998)].

The above scenario clearly shows that it is difficult for any government in a post-conflict context to address all the numerous socio-economic needs of its people single handed (health, shelter, food, clothes, water and sanitation). The quest to address these issues as prerequisites to promoting sustainable peace, reconciliation and reconstruction became the greatest priority of the post-conflict government in Sierra Leone and its partners. This created the need for international donors, including the UN and her agencies, to support the government to meet these goals as well as help it to carry out its reform agenda. That is, the unstable situation, as indicated by Macaulay (2012) in Zack-Williams (eds.), required external intervention by several actors to address the plight of the war affected population

and promote sustainable peace. The realisation of this desire led to the creation of the National Commission for Resettlement, Reintegration and Rehabilitation (NCRRR), which was tasked with coordinating and implementing actions geared towards addressing the socio- economic needs of the war affected population.

6.6.2 Aid and the Peace Building Initiatives

The National Commission for Resettlement, Reintegration and Rehabilitation (NCRRR)

External donors, including the Department for International Development **(**DFID**)**, the United States Agency for International Development (USAID), the African Development Bank (AFDB) and the United Nations (UN) were called upon by the government to support various socio-economic initiatives geared towards supporting the war victims. As mentioned above, through external support the government was able to establish the National Commission for Resettlement Reintegration and Rehabilitation (NCRRR), the civilian counterpart of the DRR programme, with the responsibility of coordinating and managing all efforts aimed at addressing the needs of the war affected population.

The first intervention of the commission was to coordinate and implement resettlement of 350,000 war affected victims, predominantly those living in camps, and to provide micro credit schemes to the most vulnerable sections of the population in the aftermath of the war. To this end, it established the Social Action Poverty Alleviation programme (SAPA), which focused on addressing the socio-economic needs of these groups and its activities included: promoting small agricultural backyard gardening schemes for the affected population and the sale of their agricultural products, food stuff processing and the provision of safety net cash to purchase basic households equipment. The commission was later restructured under a new name, mandate, roles and responsibilities tasked with overseeing and supervising the reparation programme: the National Commission for Social Action (NaCSA). More specifically, the NaCSA was created with the aim of promoting community based demand driven and sustained development activities geared towards poverty alleviation and quality improvement of life, as a means of preventing the threat of conflict, in collaboration with NGO's, community organisations, the private sectors and donors [NaCSA Act (2001)]. Since its inception it has initiated and implemented several programmes aimed at bringing positive economic changes to the lives of the war affected population. This has covered such matters as micro-finance and enterprise development, which provides access to credit to set up small scale businesses and loans, improved access to basic financial services, food security projects and a sustainable youth programme geared towards providing employment opportunities for youths through skill training and

cash for work schemes [NaCSA (2009)]. Moreover, the commission, through its rural infrastructural development programmes, has engaged in the construction of feeder and community roads and market structures. Further intervention was seen in the drive to facilitate access to and utilisation of basic social structures including the provision of free education to children, health care and capacity building for citizens for empowerment purposes. In addition, houses were constructed to cater for vulnerable war affected victims.

The NaCSA reparation programme saw the registration of over 30,000 war affected victims across 40 chiefdoms within Sierra Leone. Approximately 20,500 of these benefited from psychosocial counselling and about 20,000 received support from Micro grants followed by the creation of the War Victims Trust funds [NaCSA report (2009)]. The realisation of the NaCSA peace building and consolidation of support to war affected victims would not have been possible in the absence of external assistance from diverse group of donors. These have included: the Department for International Development (DFID), the African Development Bank (AFDB), Concern Worldwide, the International Organisation for Migration (IOM), the Germany Development Agency (GTZ), the Germany Development Cooperation (KfW), the World Bank, the United Nations Fund for Women (UNIFM),the United Nations Integrated Programme in Sierra Leone (UNIPSIL), the United Nations Peace Building Fund (UNPBF) and the United Nations Refugee Agency (UNHCR) [NaCSA report (2009)].

Table 6.1 presents the amount of foreign assistance in US dollars (using 2009 as base year) given towards the NaCSA reparation programme.

Table 6.1: National Commission of Social Action (NaCSA)
Reparation amount paid

Amount paid to *War Wounded and War Widows by District in Sierra Leone (in Thousand $US) (2009-2012)*

District	2009	2010	2011	2012	Total 2009-2012
Western Rural	220010	NA	58559	7158	285727
Western Urban	89387	NA	25571	1022	115980
Bombali	101644	NA	46796	4346	152786
Tonkolili	162315	NA	17900	3936	184151
Koinadugu	175010	NA	6392	3834	185236
Port Loko	248201	NA	13553	5624	267378
Kambia	103745	NA	7415	3834	114994
Kenema	198911	NA	19178	3834	221923
Kono	154261	NA	22247	37835	214343
Kailahun	97704	NA	10995	3579	112278
Bo	121080	NA	39636	4090	164806
Bonthe	36858	NA	6392	3579	46829
Moyamba	53755	NA	5114	2556	61425
Pujehun	59358	NA	11251	5112	75721
TOTAL	**1822239**		**290999**	**90339**	**2203577**

Note that in 2009, NaCSA spent US$2.2million and in 2011 a sum total of US $ 4.4 million on all 5 categories (war wounded, war widows, amputees, victims of sexual violence and child victims) of war victims reparation programmes and most of these funds were provided by the United Nations Peace Building Commission Programme in Sierra Leone. The above figures are real values after being adjusted for inflation, where 2009 being the base year. NA-Not Available.

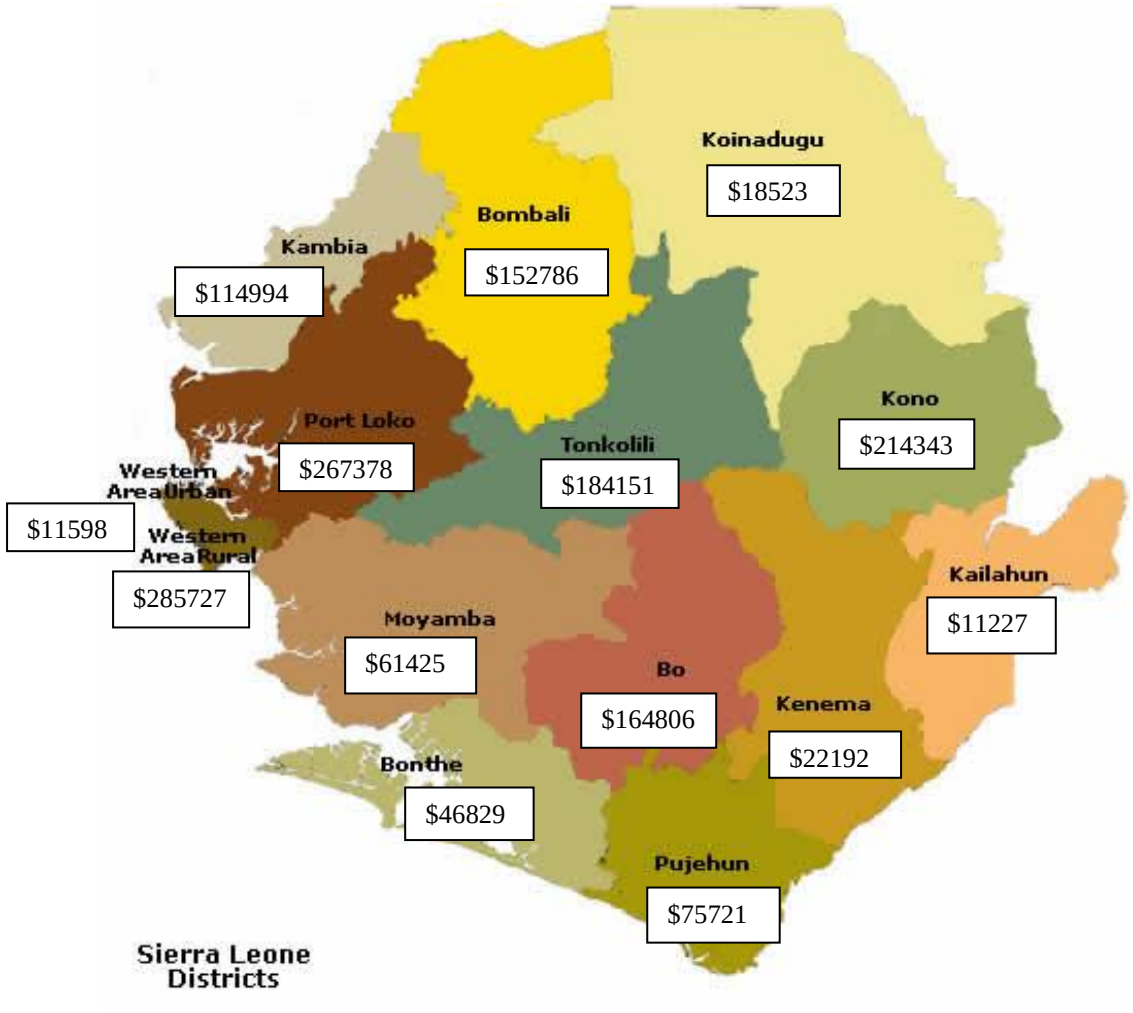
Figure 6.1a shows the amount of foreign aid in US dollars towards the war wounded and war widows per district under the NaCSA programme, whilst figure1b presents the amount per province (region) for 2009, 2011 and 2012. It is important to note that the amount of foreign aid allocated per district and province are adjusted for inflation using 2009, 2011 and 2012 as base years. As shown in figure 6.1a, foreign assistance through NaCSA for the above victims was distributed across twelve districts (i.e. Bombali, Tonkolili, Koinadugu, Port Loko, Kambia, Kenema, Kono, Kailahun, Bo, Bonthe, Moyamba and Pujehun) and two areas in the west (Western Rural and Western Urban). By contrast, Figure 6.1b shows the distribution of foreign aid for four regions: North, East, South and the Western Area. The North consists of five districts (Bombali, Tonkolili, Koinadugu, Port Loko and Kambia), the East three (Kenema, Kono and Kailahun), the South four (Bo, Bonthe, Moyamba and Pujehun) and there are two in the Western Area (Western Rural and Western Urban). At district level, Port Loko, Kenema, the Western Rural area and Kono are the highest beneficiaries of foreign assistance with amounts between US$ 214,343 and US$ 285,727 for the years 2009-2012-see Figure 6.1a.

At the provincial (regional) level, the Northern Province has the highest amount of foreign aid ($ 904,545, which is equivalent to 41 %), followed by the Eastern Province ($ 548,544 equivalent to 25 %), and the Western Area ($ 401,707 equivalent to 18 %), whilst the

South has the lowest ($348,781 equivalent to 16 %) for the aforementioned victims between 2009 and 2012-see Figure 6.1b.

Figure 6.1a: NaCSA Reparation Programme 2009-2012

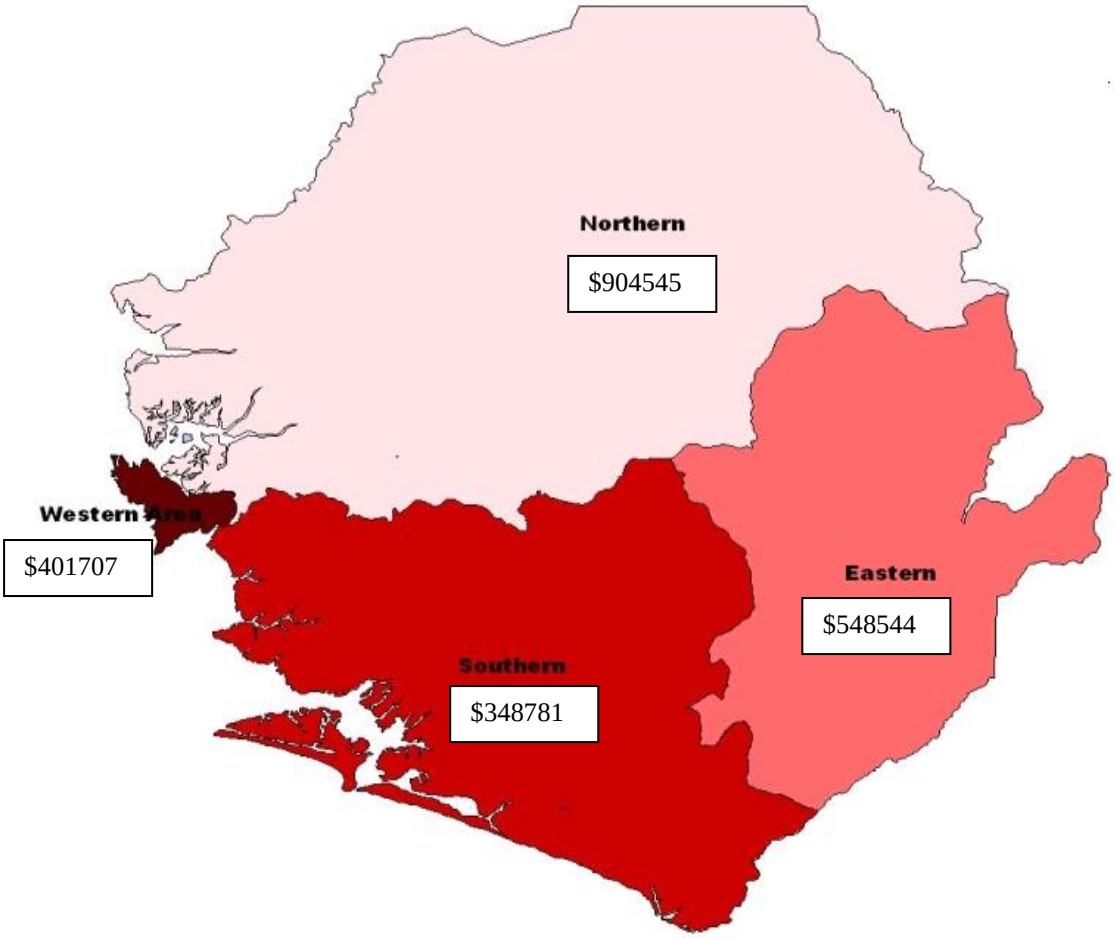
Total amount paid to War Wounded and War Widows by District in Sierra Leone (in Thousands of $US).



All amounts allocated per district are adjusted for inflation.

Figure 6.1b: NaCSA Reparation Programme 2009-2012

Total amount paid to War Wounded and War Widows by Province in Sierra Leone (in Thousands of $US)



The Northern Province consists of five districts (Bombali, Tonkolili, Koinadugu, Port Loko and Kambia), the Eastern has three (Kenema, Kono and Kailahun), whilst the Southern has four (Bo, Bonthe, Moyamba and Pujehun). The Western Area is divided in to Western Urban and Western Rural areas. All amounts allocated above are adjusted for inflation.

Transitional Justice Initiatives

Many scholars of transitional justice such as Hayner (2002) and Krtiz (2002) have observed that societies emerging from conflict face the challenges of addressing and dealing with the legacy of the past-the gross human rights abuses committed during the violent conflict and promoting peace and reconciliation. Dealing with past atrocities by establishing common truth and justice, peace, reconciliation and development are vital elements that ensure the country does not slip back into conflict. The increased recognition of the creation of a transitional justice approach is to address the past, foster peace, reconciliation and development in the post-conflict setting.

The concept of transitional justice, as defined by the UN (2000), refers to a full range of processes and mechanisms utilised by the war affected society in order to come to terms with past abuses as a means of ensuring accountability, serve justice and achieve reconciliation. The aftermath of the conflict in 2002, saw the need for Sierra Leoneans to consolidate peace and reconciliation. To achieve this task, the Sierra Leone Government and its allies embarked on designing and implementing various transitional justice mechanisms, which included the setting up of the truth commission to create an unbiased historical record of the violation and abuses suffered, to address impunity, to respond to needs of the victims and to promote healing and reconciliation [SLTRC (2004)]. In addition, the special court was established to try those who bore the greatest responsibility for human abuses during the war, to implement institutional reforms and to rehabilitate key state institutions affected by the conflict so they could discharge their roles effectively in a post-conflict environment in terms of initiating reparation programmes to address the socio- economic needs of the war affected population [Government of Sierra Leone (2002)]. The implementation of these transitional justice mechanisms would not have been possible if left in the hands of the state authorities. As Zack-Williams (2012) has argued, the degree of violence and the wider consequences of armed conflict presented a scenario for revitalising old institutions and systems or to open up innovative strategies from external agencies.

Sierra Leone Truth and Reconciliation Commission

The SLTRC was set up by an act of Parliament in 2000 as required by Article IX of the Lomé Peace Agreement. The aim of the commission was to prevent a repetition of the violations and abuses suffered and it was mainly funded by foreign governments and international organisations. The initial estimated budget was US $10 million but it was revised down to US$6.6 million. These funds (mostly geared towards the peace process) were managed by the Office of the Human Rights Commission and disbursed through the United Nations Development Programme (UNDP) in Freetown.

The Special Court of Sierra Leone (SCSL)

The Special Court was set up as a hybrid between the Government of Sierra Leone and the United Nations in 2002, with its remit being to try those "who bear the greatest responsibility for serious violations of international humanitarian law and Sierra Leonean law committed in the territory of Sierra Leone since 30 November 1996" [Government of Sierra Leone (2002)]. The Court instituted trials of the Civil Defence Force, the AFRC and RUF, as well as some for Charles Taylor [Government of Sierra Leone (2002)]. It was

mainly financed by different donors and organisations, of which the USA, the UK, the Netherlands, Canada, the UN Office-of Legal Advisor were predominant, alongside two regional donors: Sierra Leone and Liberia [SC resolution 1315, (2000)]. The budget involved in the operation of the SCSL varied on a yearly basis**,** from US$25.5 million in 2002 to US$35.4 million in 2004 and US$36.3 million in 2005. This amount was subsequently increased to US$41.2 million in 2007, following the trail of Charles Taylor in The Hague [Chatham House, (2007)].

Below is a financial break down for the period 2002- 2012.

Table 6.2 Financial Data on the Cost Involved in the Operation and Management of the Special Court for Sierra Leone (SCSL) 2002-2012 (in thousand $US)

No	Year	Amount (in thousands of $US)
1	2002-2003	25514
2	2004-2005	35396
3	2005-2006	36252
4	2007-2008	41167
5	2008-2009	25766
6	2009-2010	9638
7	2010-2011	17352
8	2011-2012	9523
		Total= 200608

Source: SCSL Annual report 2003-2012. All amounts allocated to the court are real values after being adjusted for inflation using the current year index divided by the base year index and multiplied by the amount of the base year, where 2002 is the base year and 2014 the current year.

A close examination of the costs associated with the creation and running of the Special Court show that the years 2004-2007 evidenced the highest budget allocations as the trails kicked in and gradually decreased in 2011 to US$9.5 million when the court's activities were reduced. Besides international assistance in the form of funds, technical and logistic support was also provided to ensure the court achieved its mandate. In this respect, Sieff (2001) has argued that there is no way a fragile state like Sierra Leone emerging from a decade of civil conflict could have the financial capacity to execute the prosecution of war crimes had it not being assisted by the international donor organisations.

Aid and Other Peace Building

Many scholars writing on post-conflict have argued that aid given to countries emerging from conflict should not only be donated to address the humanitarian crisis produced by the conflict, but also to the root cause of the conflict and this should be done through a comprehensive peace building initiative [Good hand & Atkinson (2001)]. Within the context of Sierra Leone, peace building initiatives became a vital element of the peace process. Several initiatives were designed and implemented as required by the Lomé Peace Accord 1999 as integral element of promoting the peace, reconciliation and reconstruction

agenda. In the years following the war, as pointed by Pratt (2009), Sierra Leone received substantial resources, of which foreign aid constituted a large element, from external donors, geared towards peace building.

The signing of the Lomé Peace Accord in 1999, created a window of opportunity for the Government of Sierra Leone and civil society through the support of the international community to rebuild and secure peace with the bulk of the funds coming from the international community [United Nations (2007)]. Several peace building initiatives were implemented and with some still in progress. These initiatives included : the conduct of peaceful and democratic national elections in 2002 and 2007 as well as the local government elections held in 2004 and 2008, the establishment of the Truth and Reconciliation Commission and the Special Court, the comprehensive reform and restructuring of national security institutions (the Sierra Leone Police, the Sierra Leone Armed Forces and the Office of National Security) and the establishment and strengthening of a number of democratic institutions (the National Electoral Commission, the political Parties Registration Commission, the Human Rights Commission and the Anti-Corruption Commission). Amidst these developments in promoting the peace process, further initiatives, such as the Disarmament Demobilisation and Reintegration (DDR) programme, the local governance and election and judicial reforms were funded by external donors.

The Disarmament Demobilisation and Reintegration Programme (DDR)

The DDR programme was one of the first peace building initiatives implemented during the transition from war to peace in post-conflict Sierra Leone. It emanated from the Lomé Peace Accord of 1999 and was seen as a multifaceted as well as interconnected process. The process involved campaigns for the collection of weapons, disarmament and demobilisation of ex combatants, with their reintegration into the new Sierra Leone Army or return to civilian life [Sesay and Suma, (2009)]. In fact, the DDR programme was aimed at disarming the combatants including children across all the warring factions (RSLAF, CDF, and AFRC & RUF). The DRR benefitted immensely from both financial and technical support from the following entities: The Economic Community of West African States Monitoring Group (ECOMOG), The United Nations Mission in Sierra Leone (UNAMSIL), The United Nations Children's Fund **(**UNICEF), The United Nations Development Programme **(**UNDP**)**, The World Food Programme **(**WFP**)** and the World Bank (WB). Additionally, funding was secured from the UK, the USA, Germany, Norway, the Netherlands, Switzerland, Sweden, Canada, Italy and the European Union [NCDRR

donor report (2002)]. This is an indication that, the DRR programme could not have been conducted in the absence of foreign assistance from bilateral organisations, donors, and UN Agencies. It is estimated that by the time the war was declared to be over in 2002, the DRR commission had disarmed more than 76,000 combatants including more than 6,000 children [Sesay and Suma (2009)].

The DDR programme had four phases, which were fully supported through foreign aid, these being:

- ***The mobilisation phase*** dealing with the mobilisation of support to encourage parties associated with the process (GOSL, AFRC, RUF, UNDP, ECOMOG, and WB) to demonstrate their commitment practically and firmly so as to ensure the smooth implementation of the DDR process. This phase saw the creation of the National Commission for Disarmament Demobilisation and Reintegration (NCDDR) to coordinate a programme of assistance to all ex-combatants as well as to implement the training and employment programme.
- ***The second phase*** focused on the need for GOSL & RUF to guarantee full participation of their respective groups in the process, most especially to show up at the reception run by NCDDR and UNAMSIL.
- ***The third phase*** involved reviving the DDR process, which had been in disrepute up to May 2000 because those armed did not believe that the violence would not continue if they gave up their weapons. To this end, DDR reception centres were established where combatants were disarmed and their weapons destroyed.
- ***The reintegration stage*** dealt with the provision of assistance to ex-combatants that included technical and vocational skill training being made available in their communities. A package of US$150 in cash was given to each combatant, especially those who participated in the Reintegration Opportunity Programme (ROP), which offered incentives to former fighters to return to their towns of origin and attracts a large number by December 2002. The ROP was administered by the NCDDR while local and interventional NGOs were also implementing programmes with funds provided through international assistance from donors.

In light of the above, Sesay and Suma (2009) argued that the successful implementation of the disbarment and demobilisation stages of the DDR was largely due to the immense financial and technical support provided by external donors towards this process.

Institutional Reforms

Institution reforms refers to reforming and rehabilitating state institutions that have been virtually destroy by violence or have engage in gross human rights abuses [ICTJ (2002)]. The civil war facilitated the weakening and in some cases the collapse of state institutions, which presented severe challenges in the post-conflict transition under the peace and development agenda. In Sierra Leone, the "good governance public service reform agenda" designed in 1997, was initiated after the conflict and received support from DIFID, which led to the creation of the Governance Reform Secretariat (GRS). The GRS was responsible for directing the governance reform action plan, which constituted capacity building reform programme geared towards strengthening the public sector. The programme provided basic governance in the provincial headquarters, which included formulating polices related to decentralisation and poverty reduction. Further elements of the reform were the management and functional review of all government departments. This entailed transforming the human resource offices across ministries; by such actions as providing training for the civil service, development of civil war law and review of the grading level of salaries and conditions. In addition, the public procurement system was overhauled, which subsequently led to the enactment of the Procurement Act 2004 under which a procurement national authority was established. All of these restructuring institutional reform action plans were largely funded by DIFID, and UNDP in the form of foreign aid geared towards the peace building process.

Sierra Leone Police Reforms

Another area of institutional reforms in the context of Sierra Leone's peace building agenda was the state apparatus which included the police and military. That is, in addition to the aforementioned institutional reforms police and army sectors were also targeted by the transitional justice initiatives geared towards the consolidation of peace and security. Regarding which, DIFID through the security and justice sector reform policy provided funding to ensure that the police reforms were successfully implemented [Bieshevel et al. (2007)]. Owing to the lack of state resources, the police institutional reforms were largely supported by various development actors, including the British Commonwealth Community Safety and Security Project (CSSP) and the UN Civilian Police (CIVIPOL), DIFID and the UNDP, as well as NGOs, such as Action Aid. International assistance towards this project led to £22 million being made available by 2003 to support police activities, which increased the numerical strength of the force and the procurement of equipment [Hughes (2005), Sesay and Suma (2009)].

The reform initiative within the police force, as indicated by Charley et al. (2011) and Jalloh and Macaulay (2005), covered:

- The formulation of a new vision for the SLP, which led to the production of the Police Charter of 1998 calling for the police to help maintain peace and stability across all communities with the aim of seeing a reborn organisation, which will be a force for good in Sierra Leone,
- Adoption of a community policy approach,
- Creation of a complaints, discipline and investigation department (CDIDI) to listen to complaints against police officers by civilian and to act accordingly,
- Creation of the family support unit to handle and deal with gender based violence against women and children,
- Human rights education to be included in the training package of newly recruited police officers,
- Training related to peace education and conflict resolution,
- The restoration of various police infrastructures, including stations, hospitals and barracks destroyed by the war,
- Capacity building of senior police with regards to new policy techniques appropriate in the Sierra Leone context,
- Re-organisation of the police management, which led to the establishment of the Executive Management Board consisting of the Inspector General, Deputy Inspector General and all Assistant Inspector Generals for the various units,
- Introduction of new standards for police recruitment
- Remuneration and retention for police was revised,
- Creation of an internal audit department to coordinate quality assurance and proper utilisation of police resources
- Establishment of an equal opportunities department to ensure all police officers are equally treated regardless of age, sex, religion and tribe.

The Republic of Sierra Leone Armed Force Reforms

Like the police force, DFID provided international assistance to support the restructuring of the army under the Military Reintegration Programme (MRP). Several reforms were introduced which included the following:

- The army's name was changed from RSLMF to RSLAF and a new standard of recruitment criteria was established focusing on age, medical fitness as well as basic literacy and numeracy [Sesay and Suma (2009)],
- Smooth reintegration of ex-soldiers into the army.
- Introduction to human rights education related to international humanitarian laws, civil military relationship and military role under democracy were included in the army curriculum.
- Equipment and advising of the government forces on security alertness,
- Provision of specialised military training on logistics, communication, command control and other techniques,
- Infrastructural strengthened by the construction of shelter across military garrisons,
- Promotion of democratic principle and improving civil military relationships.

In addition, the United Kingdom provided the International Military Assistance Training Team (IMATT**)** to support the reforming of the RSLAF with the sole mandate of delivering specialised professional training in specific military areas and to ensure the army was able to embrace social responsibility in its work [Charley and McCormack (2011)].

The Judiciary Sectors

The aftermath of the conflict saw the need to create an effective court structure to support the consolidation of peace. The realisation of the reform programme within the judicial sector was, once again enhanced through external support by international agencies and the initiative led to the establishment of a strong functional magistrate court system across the country. In addition, DFID, through its Justice Sector Development Programme, provided support in refurbishing the court infrastructure to improve the delivery of an effective judicial system. Furthermore, the capacity of court officials was strengthened through the training of: Justices of the Peace, Clerks and Bailiffs [Gbla (2007)]. Moreover, 58 court officials received basic training in court administration. The salary structure was revised and augmented to motivate magistrates and other court officials to discharge their role and responsibilities as well as to make the profession lucrative [Zack-Williams (2012)].

The UNDP and DFID provided assistance towards the payment of salaries and allowances to magistrates, logistics support in the form of vehicles and office equipment was donated to the judiciary. Further help was evidenced in the reconstruction of several prisons destroyed during the war as well as the training of senior and middle level ranks in basic prison management. All of these interventions clearly created a major transformation that led to the restoration of the judicial sector in post-conflict Sierra Leone.

Local Governance and Decentralisation

The SLTRC report 2004 indicates that years of poor governance related to over centralisation contributed to the outbreak of the civil war. The aftermath of the war and subsequent recommendations of the truth commission provided an opportunity for decentralisation; in particular the responsibility of social services was given to local council [Kargbo (2009)]. Following the enactment of the Local Government Act in 2004, the Government of Sierra Leone collaborated with various donor partners to support the decentralisation process. The UNDP, World Bank, European Union, DFID were among key donors that offered financial and technical support to this process, which led to the design of various local government policies, elections and subsequent creation of 19 local government councils across the country [Zack-Williams, (2012)]. To further strengthen the process, the UNDP funded technical specialist to work with various ministries in the design of devolution plans. In addition, the 2007 election was largely financed by foreign assistance from the UK and other external donors [Penfold (2012) and Zack-Williams (2011)]. In sum, all of these interventions were only made possible due to extensive financial and technical support provided by the international donor communities aimed at promoting the peace building process.

In conclusion, it can be argued that, though foreign aid is sometimes misused, it can play a crucial role in countries emerging from conflict. That is, it can be used to address the socio-economic needs of war victims, demobilization, disarmament and reintegration of all combatants, as well as for enacting institutional reforms and reconciliation.

6.7 Methodology

This section presents the methodology used to examine war victims' attitudes toward the peace process in Sierra Leone. It includes the sampling method, data collection, estimation techniques, model specification and hypotheses.

6.7.1 Sampling method

The study involved following a stratified random sampling method to elicit information from the war victims (war wounded and war widows), who are registered under the National Commission for Social Action (NaCSA) programme in Sierra Leone. The sampling frame comprises this list of registered war victims divided into four regions (Western Area, Northern Province, Eastern Province and Southern Province). Stratified random sampling was employed in order to ensure that each province (region) was represented in the survey and a total sample of 1,200 war victims from these four regions was surveyed, with the proportion of those surveyed in each region reflecting the number of war victims. That is, some regions have higher populations of war victims than others and to account for this, weights were specified in the survey design in order to minimize under-sampling or over-sampling at the regional level [see Cameron and Trivedi 2010). More specifically, the 1,200 war victims were sampled in proportion to the population of each region, with the numbers being obtained from the number of the focal war victims (war wounded and war widows) per region divided by the total number of war victims and multiplied by the total sample. Stratification was used because it enhances the precision of the sampling estimates, in that, it increases the likelihood of a representative sample and hence, reduces sampling error [Deaton (2000)]. It also permits a wider coverage of the population, as well as desired proportions of respondents' characteristics [Fink and Kosecoff (1991)]. An explanation about how the regional samples were chosen/ selected as well as how the data were collected and over what time period is provided in detail below.

6.7.2 Method of Data Collection

The data used in this chapter were collected through survey questionnaires administered by myself between April and September 2012 [see questionnaire in appendix 6.4]. These were directly administered among war victims, who are registered under the National Commission for Social Action (NaCSA) programme in Sierra Leone. The information in this sampling frame contains the names and locations of war victims for the four aforementioned regions/provinces and centres (camp). In terms of numbers, the sampling frame consisted of 9,475 war victims in the Northern Province, 9,476 in the Eastern Province, 3,145 in the Southern Province and 15,764 in the Western Area, which gives a total of 37, 860 war victims for the four regions/provinces. Each region or province has

centres (camps) for war victims, with there being six in the Western Area (five in the rural area and one in the urban area), five in the Northern Province, four in the Southern Province and three in the Eastern Province. The regional totals in the sampling frame were crosschecked by aggregating the number of people in the camps in each region and they were found to be consistent.

Regional representation was considered during sampling in order to minimize any bias in the survey. In each region, war victims (war wounded and war widows) were selected using a probability sampling technique. That is, the stratified sampling technique was employed by region to ensure proportional representation from each. In this respect, regional samples were obtained by the number of the focal war victims (war wounded and war widows) per region being divided by the total number of war victims and multiplied by the total sample. The regional samples of war victims obtained were 500 in the Western Area, 300 in the Northern Province, 300 in the Eastern Province and 100 in the Southern Province using this technique. That is, in terms of the regional sample sizes, Western Area had the highest population of war victims, whilst the North and East had the same number and the South had the least. Figure 6.1b shows the map of the surveyed regions. Having calculated the numbers of war victims in the sample from each region, all were assigned unique numbers, which were written on slips of paper and then the participants were randomly chosen after placing these in a bag. That is, the participants' numbers were continually drawn for each region until the quota was reached. The essence of this technique was to enhance an equal chance of each war victim being selected. Each number was also unique because it corresponds to a particular war victim's name and location. The main advantages of using the regional centres were that, it was cost and time effective for the survey as all interviews could be conducted there, rather than having to travel to villages across the country.

Prior to administering the questionnaires, a pre-test was carried out after which some questions were carefully amended to enhance clarity and increased the response rate. The aim of the survey was to elicit specific information about respondents' attitudes towards the peace process using questionnaires with the dependent variable being categorical in nature. The rationale for this was to give the respondents (war victims) the opportunity to choose the category that was most closely associated with their feelings/perception about the peace process. The survey data collected also included detailed information of the demographic characteristics, such as age, gender, marital status, employment status, years of education, levels of education, category of victim, as well as the region of each

respondent. The section on employment status contained information on the unemployed, the self-employed and employed war victims. The survey also included questions that gathered information on the following attitudinal variables: co-existence, participation in the truth and reconciliation commission, security and sense of stability, trust in the government, expectations of improved economic conditions, expectations regarding employment opportunities, expectations regarding educational opportunities for children of war victims, and perceptions about the role of foreign aid in the peacebuilding process.

Table 6.3 presents the list of the war victims' centres for each of the four regions and as can be seen the number varies per region, with the Western Area having the most followed by the Northern Province, Southern Province and Eastern Province, respectively.

Table 6.3: List of Centres (Camps) Per Region for War Victims in Sierra Leone

No.	Regions		No. of Centres per Region	Names of Centres
1.	Western Area	1a. Western Urban	1	Aberdeen
		1b. Western Rural	5	Jui
				Hastons
				Grafton
				Waterloo
				Four Mile
2.	Northern Province		5	Makeni
				Port Loko
				Magburaka
				Kabala
				Kambia
3.	Southern Province		4	Bo
				Bonthe
				Moyamba
				Pujehun
4.	Eastern Province		3	Kenema
				Kono
				Kailahun

Source: National Commission for Social Action (NaCSA).

6.7.3 Estimation Technique: Ordered Probit

This sub-section explains the ordered probit estimation technique used to analyse peace attitudes among war victims. An ordered probit is employed because it has several advantages. First, it is considered suitable as the dependent variable is categorical (scaled) in nature [Jung et al. (2012a and 2012b)].

Second, since the variables also suggest ranking, the use of ordered probit is therefore fitting [Long and Freese (2006)]. In addition, several research scholars, such as Torgler (2003), Torgler and Schneider (2004) Torgler and Garcia-Valinas (2007), Alm et al. (2005), and Jung et al. (2012a), have found ordered probit useful for analysing attitudes scale models as they can enhance the reflection of both the intensity and direction of opinion of respondents (in this case, war victims) [Long and Freese (2006)]. Fourth, they are also beneficial, because they can be helpful in analysing data sets that are categorical as well as those that are ordered dependent variables [Xie et al. (2009)]. Moreover, attitudes towards the peace process can be associated with many factors and since they exhibit ordering, which enhances labels, the use of ordered probit can therefore be useful in modelling such an association. Sixth, an ordered probit can also be beneficial for analysing micro-level data [Basile, et al. (2003)]. A seventh advantage is that, it can take into account both the discrete and ordinal nature of the dependent variable [Bennell, et al. (2006)]. Moreover, it can be estimated using several software packages, as well as theoretically useful relative to other models for analysing data that are discrete or ordinal in nature [Kockelman et al. (2002)]. Finally, the technique is also employed for the current study because it can enhance the estimation of marginal effects on the dependent variable. The marginal effect estimated shows the percentage change or probability of war victims' attitudes when the explanatory variable increases by one unit.

Drawing on Long and Freese (2006) and Alauddin and Tisdell (2006), the ordered probit can be represented as follows:

$$y_i = X_i'\beta + \varepsilon \qquad (1)$$

where, y_i is the dependent (observed) variable (attitudes towards the peace process), which is scaled from 1-5, where 1=highly negative, 2=negative, 3=indifferent, 4=positive and 5=highly positive. β is the vector of the regression (estimated) parameters (coefficients) and X is the vector of independent variables, whilst ε is the error term assumed to be $\varepsilon\,(0,1)$ with a cumulative distribution represented by an upper case Phi (Φ) and the density function with a lower case Phi (ϕ). In this respect, the scale 1-5 therefore represents the degree of war victims' feelings/perception about the peace process. The scale, therefore gives respondents (war victims) the chance to choose the category that is personally associated to their feelings on a specific question.

Given that the dependent variable (y_i) is categorical, this implies that $y_i = m$, where $m = 1\ldots5$. Thus, an individual's attitudes towards the peace process can range between the category m if $\tau_{m-1} \leq y_i^* < \tau_m$, where τ_0 and τ_5 are unknown threshold parameters or cut

points which determine the estimation for each categorically observed value of y_i. It is assumed that $\tau_0 = -\infty$ and $\tau_5 = \infty$.

The probability of an individual's attitudes towards the peace process ranging between $\tau_{m-1} and\ \tau_m$ is therefore represented as follows:

$$pr\ (y = m|X) = pr(\tau_{m-1} \leq y^* < \tau_m\ |X) \quad (2)$$

Substituting $X\beta + \varepsilon$ for y^* using standard formula gives the following predicted probability:

$$pr(y = m|X) = \Phi(\tau_{m-1} - X\beta) - \Phi(\tau_m - X\beta) \quad (3)$$

Given that the dependent variable (y_i)= m =1...5, implies that respondents have the opportunity to choose among the categories that relates most closely to their perception about the peace process. The probability of an individual choosing any of the above categories is represented as follows:

$$pr\ (y = 1|X) = pr\ (\tau_0\ \leq\ y^* < \tau_1) \quad (3a)$$

$$pr\ (y = 2|X) = pr\ (\tau_1\ \leq\ y^* < \tau_2) \quad (3b)$$

$$pr\ (y = 3|X) = pr\ (\tau_2\ \leq\ y^* < \tau_3) \quad (3c)$$

$$pr\ (y = 4|X) = pr\ (\tau_3\ \leq\ y^* < \tau_4) \quad (3d)$$

$$pr\ (y = 5|X) = pr\ (\tau_4\ \leq\ y^* < \tau_5) \quad (3e)$$

Accordingly, the probability of an individual's (war victim's) attitudes towards the peace process given other attributes (explanatory variables) can be represented in the following form:

$$pr(y = 1|X) = \Phi(\tau_0 - X\beta) - \Phi(\tau_1 - X\beta) \quad (4)$$

$$= \Phi(\tau_1 - X\beta)$$

$$pr(y = 2|X) = \Phi(\tau_1 - X\beta) - \Phi(\tau_2 - X\beta) \quad (5)$$

$$pr(y = 3|X) = \Phi(\tau_2 - X\beta) - \Phi(\tau_3 - X\beta) \quad (6)$$

$$= 1 - \Phi(\tau_2 - X\beta)$$

The marginal effect of each explanatory variable on the dependent variable is estimated as follows:

$$\frac{\partial pr(y = m|X)}{\partial X} = -\beta[\phi(\tau_m - X\beta) - \phi(\tau_{m-1} - X\beta)] \quad (7)$$

$$\frac{\partial pr(y = 1|X)}{\partial X} = -\beta\Phi(\tau_1 - X\beta) \quad (8)$$

$$\frac{\partial pr(y = 2|X)}{\partial X} = -\beta[\phi(\tau_2 - X\beta) - \phi(\tau_1 - X\beta)] \quad (9)$$

$$\frac{\partial pr(y = 3|X)}{\partial X} = \beta\phi(\tau_2 - X\beta) \quad (10)$$

The above analytical framework is applied to analyse the data using the ordered probit technique.

6.7.4 Model Specification and Hypotheses

For the purpose of this study, the model takes into account a specification similar to Torgler and Schneider (2004) and Torgler and Garcia-Valinas (2007), who have extensively focused on opinion surveys using attitude scales and ordered probit estimation techniques. One of the advantages of using surveys is that it enhances the inclusion of attitude scale variables as well as other variables [Torgler and Schneider (2004)]. Since the dependent variable is categorical in nature, an ordered probit model is employed, which takes the following form:

$$ATP_i = \beta_0 + \beta_1 X_i + \beta_2 Z_i + \varepsilon_i \qquad (11)$$

where, ATP_i is the dependent variable and its denotes the degree of a war victim's attitude towards the peace process. The dependent variable attitude towards the peace process (ATP_i) mirrors respondents' answer to the question "Please can you tell me how you do feel so far about the peace process in Sierra Leone?" The answers specified were coded, whereas explained above, 1 denotes highly negative, 2 denotes negative, 3 is indifferent, 4 denotes positive and 5 is denotes highly positive.

X_i is a vector of demographic variables, and Z_i a vector of attitudinal variables, whilst ε_i is the error term.The X_i vector contains the following variables: age, female, marital status, employment status, and level of education. Age is captured in the analysis by the age in years of the respondents, Female is a dummy variable equal to 1 if the respondent is female and equal to zero otherwise. Marital status is represented in the analysis through a series of dummy variables. These include: married, single, divorced, separated and cohabiting; where married is equal to 1 and zero otherwise, single equal to 1 and zero otherwise, divorced equals 1 and zero otherwise, separated equals 1 and zero otherwise and cohabited denotes 1 and zero otherwise. Employment status is represented through a series of dummy variables, which includes unemployed, self-employed and employed, where: unemployed denotes 1 and zero otherwise, self-employed is equal to 1 and zero otherwise, and employed being 1 and zero otherwise. The level of education is also represented by a dummy variable, such that postgraduate, undergraduate, technical/vocational, secondary, primary and no formal schooling were separately coded as 1 and 0 otherwise.

The Z_i vector contains attitudinal variables which include: co-existence, security and sense of stability, trust in government, participation in the truth and reconciliation commission, expectations of improved economic conditions, expectations of educational opportunities for children of war victims, expectations of employment opportunities, and foreign aid. The variable "co-existence" measures the extent to which respondents agree or disagree with whether "Promoting co-existence amongst war victims and former aggressors should form part of the peace building effort". It is measured on a three point scale, where 1, 2, and 3 denote disagree, indifferent and agree, respectively. It is specified as a dummy variable, where agree and indifferent is equal to 1 and zero otherwise. The variable "security and restoring sense of stability" measures the degree to which war victims agree or disagree about security and stability after the conflict and it is scaled 1-3, where 1 equals disagree, 2 is indifferent and 3 denotes agree. It is represented as a dummy variable, which takes the value 1 if the respondents agree or are indifferent and zero otherwise.

Furthermore, the variable "trust in the government" gauges the degree of war victims' perception about the government during the peace building process, being scaled from 1-3, where 1 denotes no confidence, 2 is indifferent and 3 some confidence. Trust in government is therefore captured in the analysis as a dummy variable, where some confidence or indifference is equal to 1 and zero otherwise. Participation in the truth and reconciliation commission and measures the degree to which respondents agree or disagree with the statement "Participation in to the truth and reconciliation commission by those affected by the conflict should be part of any peace building efforts" and was scaled from 1-3, where 1 denotes disagree, 2 is indifferent and 3 denotes agree. It is represented as a dummy variable, where agree or indifference is equal to 1 and zero otherwise. Similarly, expectations of improved economic conditions measures the war victims' agreement or disagreement with the statement "improving the economic conditions of all Sierra Leoneans is one of the most important expectations after the Lomé Peace Accord", which was coded from 1-3, where 1 denotes disagree, 2 is indifferent and 3 agree. It is represented as a dummy variable in the analysis, where agree or indifference is equal to 1 and zero otherwise. Moreover, the variable expectation regarding educational opportunities for children of war victims measures the extent of agreement or disagreement with statement "providing educational opportunities for children of war victims is one of the most important expectations among war victims", having a scale 1-3, where 1, 2, and 3 denote disagree, indifferent and agree, respectively. It is captured in the analysis as a dummy variable, where agree or indifference is equal to 1 and zero otherwise.

In addition, the variable "expectations of employment opportunities" measures war victims' agreement or disagreement with the statement "Providing employment opportunities is one of the most important requirements for a lasting peace", with responses being on a three point scale, where 1, 2 and 3 denote disagree, indifferent and agree, respectively. It is also captured as a dummy variable, where agree or indifference is equal to 1 and zero otherwise. Finally, the variable "foreign aid" is used to measure the degree of war victims' agreement or disagreement about the role of foreign aid in the peace building efforts using a scale1-3, where 1 denotes disagree, 2 is indifferent and 3 denotes agree. It is represented as a dummy variable in the analysis, where agree or indifference is equal to 1 and zero otherwise.

For the purpose of this chapter, the following variables are focused upon: age (using various age groups), female, employment status (unemployed, self-employed and employed), participation in the truth and reconciliation, co-existence, security and sense of stability, expectations of employment opportunities, expectations of improved economic conditions and foreign aid. These variables are included in the model in order to check whether they have any association with the dependent variable (attitudes towards the peace process), thereby creating an opportunity for a detailed analysis of the estimated results.

Table 6.4, provides list and definitions of the above variables, whilst Table 6.5 presents the descriptive statistics.

Table 6.4: Variable List and Definitions-War Victims Questionnaires

No	Variable	Kind of variable	Description
1	Attitudes towards peace process	Scaled	1=highly negative, 2=negative, 3=indifferent, 4=positive and 5=highly positive.
2	Female	Dummy	Female=1, 0=otherwise
3	Age	Continuous and dummy	Age in years Age 20-30years, age 31-45years, age46-60years, age 61+ years, with age 20-30years being the reference group.
4	Expectations of improved economic conditions- measures the degree to which respondents agree or disagree with whether "improving the economic conditions of all Sierra Leoneans is one of the most important expectations after the Lomé Peace Agreement."	Scaled	1=disagree , 2=indifferent and 3=agree
5	Marital status	Dummy	Married=1 and 0 otherwise, Single=1 and 0 otherwise, Divorced=1 and 0 otherwise, Separated=1 and 0 otherwise, Co-habiting=1 and 0 otherwise; where single being the reference group.

6	Trust in the government - measures the degree of war victims' perception about the government in the peace building process.	Scaled	1=No confidence, 2=indifferent, 3=some confidence
8	Employment status	Dummy	Employed=1 and 0 otherwise, Self-employed=1 and 0 otherwise, Unemployed=1 and 0 otherwise; where employed is the reference group.
9	Expectations of employment opportunities- measure the level of agreement or disagreement with the statement "Providing employment opportunities is one of the most important requirements for a lasting peace".	Scaled	1=disagree, 2=indifferent, 3=agree
10	Participation in the truth and reconciliation commission- measures the degree to which respondents agree or disagree with whether "Participation in the truth and reconciliation commission by those affected by the conflict should be part of any peace building efforts"	Scaled	1=disagree, 2=indifferent, 3=agree
11	Co-existence- measures the extent to which respondents agree or disagree with the statement "Promoting co-existence amongst war victims and former aggressors should form part of the peace building effort".	Scaled	3=disagree, 2=indifferent, 1=agree
12	Security and restoration of stability- measures the extent to which respondents agree or disagree "with increasing security and restoring a sense of stability should be part of any peace building effort".	Scaled	1=disagree, 2=indifferent, 3=agree
13	Foreign aid-measures the level to which respondents agree or disagree with "Providing foreign aid to all war victims should be part of any peace building effort".	Scaled	1=disagree, 2=indifferent, 3=agree
14	Expectations of educational opportunities for children of war victims measures war victims' extent of agreement or disagreement with "Providing educational opportunities for children of war victims is one of the most important expectations among war	Scaled	1=disagree, 2=indifferent, 3=agree

	victims".		
15	Years of education	Continuous	Number of years at School or higher institution
16.	Level of education		No formal schooling=1 and 0 otherwise, Primary=1 and 0 otherwise, Secondary=1 and 0 otherwise, Technical/Vocation=1 and 0 otherwise, Undergraduate=1 and 0 otherwise, and Postgraduate=1 and 0 otherwise; where No formal schooling is the reference group.

Age: Age is a continuous variable measured in years and it may have an association with attitude towards the peace process. For instance, when people get older they are likely to be more law abiding and peaceful citizens. A study by Hermann et al. (2002) found a positive association between older age and attitudes towards the Oslo peace process. A Further study by Hirschi and Gottredson (2000) from the criminology literature, uncovered a negative correlation between age and criminality. Torgler and Valev (2006) also found a similar relationship between age and corruption. Consequently, various age groups are used for the current research as dummy variables (1 and 0 otherwise) to analyse whether a particular age group has common association with attitudes towards peace. The categories used are age 31-45 years, age 46-60 years, and age 61 and above years, whilst those age 20-30 years represent the reference group. It is assumed here that in post-conflict environments, war victims of younger ages are less likely to have positive attitudes towards peace and therefore a negative correlation between such cohort and attitudes towards peace is expected. On the other hand, since the elderly are more likely to be law abiding and peaceful citizens, positive association between being elderly and attitudes towards peace. In this respect, the following hypothesis is therefore developed:

Hypothesis 1: Older *war victims are more likely to have positive attitudes toward the peace process than younger ones.*

Female: Female is a dummy variable where 1 and 0 denotes women and men respectively. Wilcox et al (1996) explored the gender gap in attitudes toward the Gulf War from a cross national study. A finding from their study suggests that women are less supportive of war or military action than men. Similarly, Gwartney-Gibbs and Lach (1991) found that women are more pessimistic in their attitudes towards nuclear war. Hermann et al (2002) also found that women have positive attitudes towards the Oslo peace process. Further studies by Mocan (2004) and Dollar et al. 2001, (from the corruption literature) also suggest that women are more law abiding than men. However, Tessler et al (1999), on the other hand, found no significant difference between women and men towards peace.

In the case of war victims, it is contended here that women are more likely to be law abiding and peaceful, which thus leads to the following hypothesis:

Hypothesis 2: *Women are more likely to have positive attitudes towards the peace process than men among war victims.*

Economic Conditions: Economic conditions measures war victims 'agreement or disagreement regarding expectations for their improved economic conditions after the peace accord and is recorded as 1-3, where 1 denotes disagree, 2 is indifferent and 3 represents agree. Economic conditions can be essential to understanding opinions about resolving conflict. That is, individuals' attitudes towards peace may be influenced by current economic conditions and expectations of an improved economic situation. In the post-conflict context, expectation of a peace dividend is also common among individuals. Consequently, individuals can have positive attitudes towards peace despite their current economic conditions; for they foresee that following peaceful resolution will bring about improved economic circumstances. For instance, a survey by Al-Haj, et al. (1993) found that Israelis are more likely to support a Palestinian state if they expect it would improve their economic conditions. Accordingly, this variable is used to analyse whether expectations of improved economic conditions have an association with war victims' attitudes towards the peace process. Respondents were asked to state the degree to which they agreed or disagreed with "Improving the economic conditions of all Sierra Leoneans is one of the most important expectations now that the Lomé Peace Agreement has been reached."

A study by Nachtwey and Tessler (2002), from the peace and conflict literature, also found that individuals with better economic conditions have more positive attitudes towards peace than others who are dissatisfied with their economic situations. Anderson and Guillory (1997) also discovered evidence that poor economic conditions can lead to a reduced level of trust in public institutions and satisfaction. In light of this discussion, the following hypothesis is put forward:

Hypothesis 3: *Expectations of improved economic conditions promotes positive attitudes towards the peace process among war victims in Sierra Leone.*

That is a positive correlation between expectations of improved economic conditions and attitudes towards the peace process is predicted.

Marital Status: Marital status includes married, single, divorced, separated and cohabiting as dummy variables; where married is denoted 1 and 0 otherwise, divorced 1 and 0 otherwise, separated 1 and 0 otherwise, cohabited 1 and 0 otherwise and single is the

reference group. Widowed women were not included this category in order to avoid collinearity, because they were already in the category of war victims. The marital status of war victims might have an influence on the attitudes toward peace process. A study by Torgler and Schneider (2004) from the tax compliance literature, found that married women with greater social relations have higher tax morale than singles. However, since social capital in a post-conflict environment may have been destroyed and re-building it takes time, it is therefore difficult to make predictions about the signs of these variables.

Trust in government: Trust in the government is a scale variable and is recoded from 1-3, where 1 denotes no confidence, 2 is indifferent and 3 some confidence. This variable is used to gauge the degree of war victims' perception about the government in the peace building process. Findings from the tax morale and tax policy literature, suggests that individuals are more likely to honour their tax obligations when they have trust in their government [Torgler and Garcia-Valinas (2007), Alm et al. (2005), Torgler and Schneider (2004), Scholz and Lubell (1998a 1998b)]. If a government works well towards a peace building process, the trust of individuals about the government is likely to increase, which might enhance positive attitudes towards peace process. Thus, a positive correlation between trust in the government and attitudes towards peace process is predicted.

Employment Status: Employment status may be correlated with attitudes towards peace among war victims. This variable includes unemployed, self-employed and employed as dummy variables; where self-employed denotes 1 and 0 otherwise, unemployed is 1 and 0 otherwise and employed is the reference group. Controlling for employment status permits a better understanding about the attitudes towards peace among war victims in that it is likely for individuals to be resentful if faced with prolonged unemployment situations. Arguably, such unemployment conditions, if unchanged, could lead to resentment, which could influence the attitudes towards peace process. In general, in post-conflict settings, high rates of unemployment could increase the likelihood for conflict re-occurrence, which leads to the undermentioned hypothesis:

Hypothesis 4: *Unemployed war victims are less likely to have positive attitudes towards the peace process relative to those employed.*

A negative correlation between unemployment and attitudes towards peace process is therefore expected. In the case of the self-employed in the post-conflict setting, it is contended that this category of war victims are more likely to face many restrictions and high transaction costs due to the inefficiency of government activities in such environments. This is because, post-conflict countries are often conceived as having higher risks, slow business

activities and high tax burdens in a bid to increase government revenue base. Although being self-employed indicates some amount of prosperity from the rebuilding, it may also be difficult for businesses to boom, because most are likely to have only small capital outlay which may yield very little or no return. Furthermore, they may also have difficulty in accessing loans from financial institutions as they may not have collateral, which can be used by the bank in the event of any default. Hence a negative correlation between self-employed and attitudes towards peace among war victims is expected.

Expectations of Employment Opportunities: To further narrow the analysis, respondents were asked to state whether they agreed or disagreed with the statement "Providing employment opportunities is one of the most important requirements for a lasting peace". Responses were measured on a three point scale, where 1, 2 and 3 denote disagree, indifferent and agree, respectively. Answers from the scale provide an opportunity for a better understanding of the relationship between employment opportunities and attitudes towards the peace process. It could be argued, especially in post-conflict situations, that providing employment opportunities for individuals will have a positive effect on the peace process. Furthermore, it is posited here that expectations of employment opportunities is positively associated with attitudes towards peace among war victims, which leads to the following hypothesis:

Hypothesis 5: *Expectations* of *employment opportunities are positively associated with attitudes towards the peace process among war victims.*

That is, a positive correlation between expectations of employment opportunities and attitudes toward peace among war victims is predicted.

Participation in the Truth and Reconciliation Process: This variable permits analysis of the participation of war victims in the truth and reconciliation process and whether it has an association with attitudes towards the peace process. It is to be expected that when individuals participate in a reconciliation process (supported by external donors), they are more likely to forgive, which subsequently contributes to peace. As discussed earlier, the truth and reconciliation commission was established as a requirement of the Lomé Peace Agreement between the government of Sierra Leone and the RUF with the aim of promoting healing and reconciliation between perpetrators and victims of the war and to prevent re-occurrence of the violations and abuses suffered during the 11 year period [SLTRC (2004)]. Respondents were asked (on a scale recoded 1-3) to state the extent to which they agreed or disagreed with the statement "Participation in the truth and reconciliation commission by those affected by the conflict should be part of any peace

building efforts". The variable measures the degree of agreement or disagreement on scale 1-3, where 1, 2 and 3 denote disagree, indifferent and agree, respectively. Farraro (2003) argues that active participation of individuals in peace building initiatives can contribute to peace in a society. Consequently, participation of war victims in the truth and reconciliation commission is expected to be positively associated with attitudes towards peace and hence leads to the following hypothesis:

Hypothesis 6: *Participation in the truth and reconciliation commission by war victims promotes positive attitudes towards peace.*

In other words, a positive correlation between participation in the truth and reconciliation and attitudes towards the peace process is predicted.

Educational opportunities: Expectations regarding educational opportunities for children of war victims is used as an explanatory variable in the model. Arguably, in a post-conflict environment, expectations among individuals (including victims) are likely to be high and therefore this variable is included to check whether it has an association with attitudes towards the peace process among war victims. Respondents were asked to state the degree to which they agreed or disagreed with "Providing educational opportunities for children of war victims is one of the most important expectations among war victims". Responses were recorded on a three point scale, where 1 denotes disagree, 2 is indifferent and 3 is agree. It is likely that war victims to have varied expectations and needs in a post-conflict setting with regards to education and hence it is very difficult to make any predictions about the sign of this variable.

Co-existence: In post-conflict environments, the idea of co-existence among individuals (victims and perpetrators) can be crucial for a lasting peace. In particular, the attitudes towards the peace process may depend on whether both war victims and perpetrators are willing to peacefully live together, given that the former having suffered trauma and atrocities unleashed by the latter. The variable "co-existence" is used to analyse whether this has an association with war victims' attitudes towards the peace process in Sierra Leone. Regarding which, respondents (war victims) were asked to indicate the extent to which they agreed or disagreed with the statement "Promoting co-existence amongst war victims and former aggressors should form part of any peace building effort". It was measured on a three point scale, where 3, 2, and 1 denote disagree, indifferent and agree, respectively.

In a post-conflict environment, co-existence (in terms of peacefully living together) between victims and perpetrators takes a while. This is because social capital and trust may have been destroyed in addition to abuses the former may have suffered during the war and hence, in the immediate aftermath of conflict, both victims and perpetrators may be uncomfortable living together. A study by Vinck and Pham (2009) found that over two-thirds of internally displaced persons in Uganda were uncomfortable being together in the same church or market with former combatants. Georgiades (2007) also found, on average, 43 percent of Greek-Cypriots are not prepared to reintegrate with Turkish-Cypriots. Thus, a negative correlation is predicted between co-existence and attitudes towards the peace process among war victims. However, a study by Hazlett (2012) found that about 10 percent of individuals directly harmed in violent conflict are more likely to live in peace with former enemies and tribe members from other regions than those not harmed. In light of this discussion, it is argued here that co-existence (between victims and perpetrators) is unlikely to have positive association with attitudes towards peace. Thus, leading to the following hypothesis:

Hypothesis 7: *Promoting co-existence of all Sierra Leoneans is associated with positive attitudes towards the peace process.*

Security and Sense of Stability: Attitudes towards peace might be influenced by how individuals feel about physical security and sense of stability being restored in a society emerging from conflict. This variable is used to measure the degree to which war victims agree or disagree about security and stability after conflict and it is recorded on a scale of 1-3, where 1 equals disagree, 2 is indifferent and 3 denotes agree. It is possible that, when individuals are not sure of their physical security and stability, this could affect their attitudes towards peace. In essence, attitudes towards peace may change in a positive way if they feel there is satisfactory level of security and stability.

Respondents were asked to state the extent to which they agreed or disagreed with: "Increasing security and restoring a sense of stability should be part of any peace building effort". An analysis of the response to this elicits whether there is an association between security and restoring a sense of stability and attitudes towards the peace process among war victims. Arguably, post-conflict countries are fragile and therefore may require higher degrees of security and stability than those nations that have not suffered in this way. This leads to the following hypothesis:

Hypothesis 8: *Increased security and stability enhances positive attitudes towards the peace process among war victims.*

Years of Education: Years of education is a continuous variable, measured by the number of years at school or in higher institution and may be correlated with attitudes towards peace among war victims. More specifically, it is contended by this researcher that when war victims have few years in education, they are more likely to have less knowledge, which increases their vulnerability and hence might have a negative association with attitudes towards peace. By contrast, it is expected that those with more years of education, will be more aware about peace building initiatives. Thus, the sign of this variable cannot be predicted.

Level of Education: The level of education of war victims might have an association with attitudes towards peace. Apart from years of education, level of education is also used and this was represented by dummy variables; where primary, secondary, technical/vocational, undergraduate and postgraduate were separately coded as 1 and 0 otherwise, whilst no formal schooling was the reference group. When war victims become highly educated, they are more likely to be aware about national issues and peace building initiatives. That is, education has an impact on people's level of awareness about the world. They may also become more critical about the establishment either because, they may have different views about the peace building initiatives or may have less confidence in the government's ability to deliver them. Similarly, it is also likely that those with low education, such as primary, secondary and vocational training, are sometimes faced with high unemployment, which might also have an influence on their attitudes towards peace, whereby they are more likely to be frustrated and vulnerable. Thus, it is difficult to make a clear prediction about the signs of these variables.

Foreign Aid: The study uses foreign aid as a scaled variable to explore whether the provision of such assistance has an association with attitudes towards the peace process among war victims in Sierra Leone. As discussed earlier, foreign aid to war victims in Sierra Leone took various forms, such as the provision of the reparation funds through NaCSA, shelter, health services, food supply, training and micro credit to victims of the war. Budget and other technical support were also provided to the government, channelled through the Ministry of Finance and Economic Development as well as other ministries, including Social Welfare, Education and Health. Respondents were asked to state the extent to which they agreed or disagreed with "Providing foreign aid to all war victims should be part of any peace building effort". It is measured on a scale recoded from 1-3, where 1, 2 and 3 denote disagree, indifferent and agree, respectively. Arguably, when such aid is provided to war victims it is likely to contribute to the peace and therefore the following hypothesis is developed:

Hypothesis 9: *Providing foreign aid to war victims promotes positive attitudes towards the peace process.*

Thus, a positive correlation between foreign aid and attitudes towards peace among war victims is predicted.

Table 6.5 presents the descriptive statistics of the dependent and explanatory variables.

Table 6.5: Descriptive Statistics on Attitudes towards the Peace Process among War Victims in Sierra Leone

Variable	Obs	Mean	Std. Dev.	Min.	Max
Attitudes towards peace process	1200	4.10	0.79	1	5
Female	1200	0.57	0.49	0	1
Married	1200	0.29	0.45	0	1
Single	1200	0.08	0.27	0	1
Divorced	1200	0.01	0.09	0	1
Separated	1200	0.04	0.19	0	1
Cohabiting	1200	0.17	0.37	0	1
Age	1200	50.19	14.02	25	86
Years of education	1200	9.66	5.97	0	40
Unemployed	1200	0.53	0.49	0	1
Self-employed	1200	0.45	0.49	0	1
Employed	1200	0.01	0.11	0	1
War wounded	1200	0.59	0.49	0	1
War widow	1200	0.40	0.49	0	1
No formal schooling	1200	0.16	0.37	0	1
Primary	1200	0.31	0.46	0	1
Secondary	1200	0.34	0.47	0	1
Technical/Vocational	1200	0.13	0.34	0	1
Undergraduate	1200	0.03	0.19	0	1
Postgraduate	1200	0.01	0.11	0	1
Trust in government	1200	2.02	0.84	1	3
Foreign aid (TRC)	1200	2.96	0.25	1	3
Participation in the TRC	1200	2.05	0.81	1	3
Expectation of employment opportunity	1200	2.01	0.84	1	3
Expectation of improved economic conditions	1200	1.32	0.59	1	3
Co-existence	1200	1.97	0.83	1	3
Security and restoration of stability	1200	2.01	0.84	1	3
Edu. Opp. for children of war victims.	1200	2.05	0.84	1	3

6.8 Discussion of Results

This section presents estimation of results using the ordered probit and the marginal effects for each independent variable, which is followed by discussion of these findings. It is important to note that in all specifications, the marginal effects of all independent variables on the dependent variable are presented. Tables 6.4 and 6.5 above, provide definitions of the variables and descriptive statistics, respectively. In Column 1 of Tables 6.6, the estimated results of all the hypotheses are presented using the above estimation technique. Alternative specifications are provided in Columns 2 and 3 of Table 6.6, which include additional variables that are not hypothesised. The estimations in Columns 2 and 3 also include the categorization of specific variables, such as age groups, marital status and levels of education. The main reason for categorising such variables is to examine whether these have an association with attitudes towards peace among war victims. Furthermore, it allows for checking the robustness of the results across various specifications. The ordered probit is also employed to show estimates of age squared (see appendix 6.2). The estimations of results using the linear probability model are also presented (see Appendix 6.3). This approach is employed in order to check whether there is any consistency in terms of the results between different estimation techniques. However, for the purpose of discussion of the results, estimates from the ordered probit are used.

In Table 6.6, the coefficient for female is positive and statistically significant across all specifications. That is, the estimated results suggest that the hypothesis that "Women are more likely to have positive attitudes towards the peace process than men among war victims cannot be rejected and that women are between 0.17 and 0.59 percentage points more likely to have positive attitudes towards peace relative to men among war victims (war wounded and war widows). It can also be seen that the estimated coefficients of the female variable are also highly significant across all specifications among other variables employed in the model. Thus, this might be interpreted as an indication that gender is crucial in understanding attitudes towards peace in countries emerging from conflict. This result also resonates with findings by Gwartney-Gibbs and Lach (1991), where women were found to be significantly more pessimistic in their attitudes about nuclear war than men.

A highly positive correlation emerges in all estimations between foreign aid and attitudes towards peace. That is, the estimated results of foreign aid remain robust across all specifications even after controlling for categorized variables, including different age groups, marital status, unemployed and self-employed, as well as levels of education.

These findings suggest that the provision of foreign aid has a positive association with attitudes towards peace, with marginal effects of between 4.48 and 5.74 percentage points. This finding resonates with the hypothesis that "providing foreign aid to war victims promotes positive attitudes towards the peace process". This is not surprising, given the fact that the country has been and still remains heavily donor driven [UNDP (2006)]. Similarly, a significantly positive correlation between participation in the truth and reconciliation commission and attitudes towards peace is found. This infers participation in the commission by those affected enhances positive attitudes towards peace, with marginal effects of between 10.71 and 13.52 percentage points. This clearly provides support for the hypothesis that "Participation in the truth and reconciliation commission promotes positive attitudes towards peace among war victims". Hence, an indication that participation in to the truth and reconciliation commission is significant to understanding war victim's attitudes towards peace.

In the case of employment status, unemployed, self-employed and employed are used as dummy variables, with employed being the reference group. The findings imply that the hypothesis that "unemployed war victims are less likely to have positive attitudes towards the peace process relative to those employed" cannot be rejected. That is, the estimated coefficients on unemployed are negative and significant. Being an unemployed war victim is negatively correlated with attitudes towards peace when compared to those employed by between 0.93 and 1.72 percentage points. This result is, however, not surprising, because unemployment has been one of the major issues facing the government and was one of the causes of the civil war in Sierra Leone [TRC report (2004)]. Similarly, the estimated coefficient on self-employed is negative and highly significant across specifications. That is, being a self-employed war victim is negatively associated with attitudes towards peace relative to the employed by between 2.22 and 3.68 percentage points. This result is in line with hypothesis 4, and also corroborates with findings by Vinck and Pham (2009), where lack of job opportunities at the current place were associated with the decision to move and attitudes towards former combatants among internally displaced persons in Uganda.

In order to have a comprehensive insight into the relevance of employment issues, expectations regarding employment opportunities were also included in the questionnaires. It emerges that the estimated coefficient on expectations for this is positive and significant across all specifications. Moreover, the coefficients for expectation of employment opportunities are positively related with attitudes towards peace by between 0.67 and 4.92 percentage points. This suggests that expectation of employment opportunities has a

positive association with attitudes towards how to achieve peace among war victims in Sierra Leone. This variable remains robust even after controlling for economic conditions, coexistence, security and restoration of stability, expectations of education opportunities for children of war victims, self-employed, unemployed, various age groups as well as levels of education. Thus, these outcomes could be seen as providing strong evidence that expectation of employment opportunities is crucial to understanding attitudes towards peace among war victims in Sierra Leone.

Similarly, the coefficients for expectation of improved economic conditions indicate positive and statistically significant association with attitudes towards peace. It can be seen that expectations of improved economic conditions is positively associated with attitudes towards peace by between 0.76 and 0.77 percentage points. This implies that, war victims are more likely to have positive attitudes towards the peace process if they expect an improvement in their economic conditions. These outcomes resonate with hypothesis 3 and with the findings from previous studies. For instance, Al-Haj et al. (1993) also found that Israelis are more likely to support a Palestinian peace process if they expect it would improve their economic conditions. By contrast, expectation of educational opportunities for children of war victims has a negative and significant correlation with war victims' attitudes towards peace.

Contrary to the proposed hypothesis, a negative correlation between co-existence and attitudes towards peace emerges, with the coefficient being highly significant at the 1 percent level across all estimations. That is, promoting co-existence among war victims and former aggressors is found to be negatively associated with attitudes towards peace, with marginal effects of between 0.06 and 0.34 percentage points. A possible explanation for such a negative association could be attributed to the fact that time might be short and the horrors of the war might still be strong in the minds of victims especially in the immediate aftermath of it. These outcomes corroborate with previous studies, such as Georgiades (2007) and Vinck and Pham (2009). Georgiades (2007), as mentioned above, used a public opinion survey of 150 randomly selected Greek-Cypriot citizens and found that on average, 43 percent of respondents were not prepared to reunite with Turkish-Cypriots. Similarly, Vinck and Pham (2009) also found that over two-thirds of internally displace persons were not comfortable being together in the same church or market with former combatants in Uganda. Despite the consistency of results with those studies by Georgiades (2007) and Vinck and Pham (2009), they contrast with the finding by Hazlett (2012), where 10 percent of Darfurian refugees directly harmed by violent conflict were

more likely to live in peace with former enemies and tribes men from other regions than their counterparts who had not. A possible explanation for the above difference between these findings and that of Hazlett (2012) could be that trust and social capital may have been destroyed more comprehensively in Sierra Leone owing to the severity of the abuses and trauma suffered by its citizens. Another possible reason could be because of the heightened regional and ethnic differences among victims and perpetrators, owing to the 2012 presidential and parliamentary elections, which coincided with this survey. Moreover, because of the short time after the war, it may take a while for co-existence among the aforementioned.

Attitudes towards peace may also be associated with how war victims feel about physical security and their sense of stability having been restored in the aftermath of a violent conflict and hence, these are also controlled for. The findings from the estimations regarding these indicate that the hypothesis that "Increased security and stability enhances positive attitudes towards the peace process among war victims" cannot be rejected. Across all specifications, the coefficient is highly statistically significant even after controlling for other variables. That is, increased security and stability is found to be positively associated with attitudes towards peace, with a marginal effect of between 0.90 and 1.63 percentage points. This is a clear indication that security and sense of stability are relevant to understanding war victims' attitudes towards peace in Sierra Leone.

The relationship between age and peace attitudes among war victims are controlled for by first, using the aggregated (without categorization) age as a continuous variable to examine whether it has an association with attitudes towards peace. The findings reveal a positive correlation between age (aggregated) and attitudes towards peace among war victims and the estimated coefficients are highly significant at the 1 % level. That is, the outcomes suggest that an increase in age is more likely to have positive attitudes towards peace. In order to check the robustness of this result, various age groups [i.e. age 31-45, age 46-60, and age 61 and above) are used as dummy variables, where age 20-30 is the reference group. Considering the different age categories, it can be observed that there is a negative correlation between war victims aged 31-45 and attitudes towards peace. The estimated coefficient of the age group 31-45 is negative and highly significant at the 1 percent level- see Columns 2 and 3 of Table 6.6. This result suggests that war victims between age 31 and 45 are less likely to have positive attitudes toward peace than those in the reference category by between 4.59 and 5.68 percentage points. By contrast, the estimated

coefficient for the age group 46-60 is positive and highly significant with marginal effects of between 2.82 and 3.16 percentage points.

This means that war victims between the age group 46-60 are more likely to have positive attitudes towards peace relative to the reference age group. Hence, the results on the different age groups are robust and consistent with the hypothesis that "Older war victims are more likely to have positive attitudes towards the peace process than younger ones". That is, although the evidence reveal some negativity amongst relatively younger cohorts, but that positive attitudes tend to predominate amongst those victims aged 46 and above.

The effect of marital status on attitudes towards peace is also controlled for by using married, divorced, separated and cohabiting as dummy variables, with single being the reference group. It is observed that the married variable maintains its sign, and statistical significant at the 10 % level. By contrast, a negative correlation is found between separated and attitudes towards peace, which is highly significant across specifications. This implies that separated war victims are less likely to have positive peace attitudes than singles with marginal effects of between 3.41 and 3.45 percentage points. Similarly, a negative correlation is found between cohabiting war victims and attitudes towards peace, with the results being robust across specifications. Differences in marital status between those who are married on the one hand, and the separated as well as cohabiting on the other hand, are clearly obvious. That is, whilst the results suggest a positive correlation between married and attitudes towards peace, the opposite holds for both those separated and cohabitees.

In order to confirm the relevance of education on peace attitudes, levels of education, including primary, secondary, technical/vocational, undergraduate and postgraduate as dummy variables are used in our estimations. The reason for doing so is to check whether these variables have an association with attitudes towards peace. Looking at the various categories of educational levels, it is observed that postgraduate education has a positive and significant association with attitudes toward peace relative to the reference category of no formal schooling. By contrast, primary education, secondary education and technical/vocational education are found to exhibit negative and significant association with attitudes towards peace. Thus, implying that, war victims with these levels of education (primary, secondary and technical/vocational education) are less likely to have positive attitudes toward peace than those in the reference category of no formal education.

The association between trust in the government and attitudes toward peace is also examined. It can be observed that there is a positive relationship between war victims who trust in the government and attitudes towards peace.

Table 6.6 Ordered Probit Estimations on War Victims' Attitudes towards the Peace Process in Sierra Leone

Dependent Variable: Attitudes towards the Peace Process.

Ordered Probit	Column 1			Column 2			Column 3		
Variables	**Coefficient**	**Z-value**	**Mar. Effects**	**Coefficient**	**Z-value**	**Mar. Effects**	**Coefficient**	**Z-value**	**Mar Effects**
Female	0.0376**	2.23	0.00170	0.1507***	3.87	0.00586	0.1437***	2.85	0.00574
Widows	0.9706***	5.74	0.04985	0.8814***	3.28	0.03425	0.8667***	3.25	0.03462
Foreign aid	1.1177***	5.90	0.05741	1.1524***	6.50	0.04478	1.1561***	6.47	0.04618
Part. in the TRC	2.6316***	6.90	0.13517	2.7548***	6.85	0.10705	2.7541***	6.67	0.11002
Emp. opp.	0.1766**	1.10	0.00907	0.1721*	1.00	0.00668	1.2305***	4.93	0.04915
Eco. Conditions	0.1501**	1.91	0.00771	0.1981**	2.30	0.00769	0.1946**	2.25	0.00777
Coexistence	-0.0108*	-2.08	-0.00056	-0.0881**	-2.73	-0.00343	- 0.4978**	-2.40	- 0.00199
Security & Rest. Stability	0.1747	1.21	0.00897	0.4188**	1.83	0.01627	0.4058**	1.95	0.01621
Self-employed	-0.7155***	-3.36	-.03675	-0.5699**	-2.09	-0.02215	-0.5761**	-2.10	-0.02301
Unemployed	-0.3343*	-1.58	-01717	-0.2379**	-3.85	-0.00925	-0.2533**	-3.90	-0.01011
Age 31 – 45	-1.2550***	-5.60	-0.05684	-1.1803***	-4.37	-0.04587	-1.2254***	-4.31	-0.04895
Age 46-60	0.6967***	3.58	0.03155	0.7340*	1.79	0.02852	0.7756*	1.89	0.03098
Age 61 and above	0.5853***	3.75	0.02651	0.6415	1.19	0.02493	0.6951	1.30	0.02777
Married	-	-	-	0.0583**	2.25	0.00227	0.0780**	2.34	0.00312
Divorced	-	-	-	-0.1931	-0.46	-0.00750	-0.2111	-0.50	-0.00843
Separated	-	-	-	-0.8770***	-3.05	-0.03408	-0.8629***	-3.00	-0.03447
Cohabiting	-	-	-	-0.3013*	-1.38	-0.01171	-0.2881*	-1.31	-0.01151
Edu. Opp. Children of Vic.	-	-	-	-0.36598*	-1.72	-0.01422	- 0.5245**	-2.26	-0.02095
Prim. Edu.	-	-	-	-0.2274*	-1.63	-0.00884	-0.2450*	-1.73	-0.0099
Sec. Edu	-	-	-	-0.4063***	-2.97	-0.01579	-0.3977***	2.87	-0.01589
Tech. / Vocational	-	-	-	-0.7037***	-4.12	-0.02735	-0.7103***	-4.14	-0.02838
Undergraduate	-	-	-	0.2677	0.95	0.10403	0.2536	0.90	0.01013

Postgraduate	-	-	-	0.53108 **	1.67	0.02064	0.5250*	1.64	0.02097
Trust in government	-	-	-	-	-	-	2.0727***	4.13	0.0828
Chi2 (P-Value)	0.0000	-	-	0.0000	-	-	0.0000	-	-
Pseudo-R2	0.5668	-	-	0.5845	-	-	0.5870	-	-
No. of Obs.	1200	-	-	1200	-	-	1200	-	-

The dependent variable is attitudes towards the peace process; coded on a five point scale, where 1-5 denote highly negative, negative, indifferent positive and highly positive, respectively (see Table 1 for full definition). The marginal effects are calculated at the highest dependent variable score (5), whilst the reference groups include: Male, Single and War Wounded, Employed, Age 20-30 years and No formal schooling. ***, ** and * denote significance at the 1%, 5% and 10% levels, respectively.

Furthermore, estimated values of the pseudo-R^2, are presented, which mirrors how well the models fit the data and these range between 0.57 and 0.59, thus indicating a reasonable fit across all specifications. The estimated results in Tables 6.6 indicate that for the entire sample the variables female, foreign aid, participation in the TRC, expectations of employment opportunities, security and restoration of stability, expectations for improved economic conditions, expectations of educational opportunities for children of war victims, married, separated, cohabiting, co-existence, unemployed, self-employed, primary education, secondary education, technical/vocational education, postgraduate education, trust in government, age 31-45 and age 46-60 seem to have a statistically significant association with attitudes towards peace. Of these, co-existence, unemployed, self-employed, primary education, secondary education, technical/vocational education, age 31-45 years, separated, cohabiting and expectations of education opportunities for children of war victims emerge as having a negative correlation in this respect.

On the whole, the findings resonate with some previous peace and conflict studies, as well as other attitude scales literature, such as tax morale, corruption and criminality. For instance, Hermann et al. (2002) employed multivariate regression analyses, and found that those with higher levels of education, of older age and women have more positive attitudes towards the Oslo peace process than other groups. Gwartney-Gibbs and Lach (1991) also elicited that women significantly have more pessimistic attitudes towards nuclear war than men. Similarly, Wilcox et al. (1996) used both multivariate and bivariate regression analyses, and discovered a statistically significant difference between women and men in terms of association with attitudes towards the Gulf War. That is, their findings suggest that women in most developed and developing cities are less supportive of military action than men. In the case of economic conditions, Al-Haj et al (1993) uncovered that Israelis are more likely to support a Palestinian peace process if they expect it would improve their economic conditions. Similarly, Nachtwey and Tessler's (2002) findings suggest a positive correlation between improved economic conditions and attitudes towards peace. On a difference note, Bellow and Miguel (2009) elicited that households who were directly exposed to violence are more likely to attend community meetings, vote and join political parties. In addition, Collier and Hoeffler (2002a), from the defence and peace economics literature, found that an increase in foreign aid indirectly reduces the risk of conflict through its association with growth. Finally, studies by Torgler and Schneider (2004) in the tax morale literature, also find that being self-employed reduces the probability to honour tax obligations among Austrians.

The estimations regarding security and sense of stability, foreign aid, age, unemployment status, participation in the truth and reconciliation commission, expectations of improved economic conditions, expectations of employment opportunities, and female are all consistent with the predictions and hypotheses except co-existence. More specifically, the findings indicate a positive correlation between increased security and stability and attitudes towards peace. Similarly, foreign aid is found to be positively associated with peace attitudes, whilst being aged 31-45 years, separated, or being unemployed are negatively associated with attitudes towards peace. In the case of unemployment, being unemployed or self-employed is less likely to have positive attitude towards peace. Thus, these outcomes are consistent with the hypothesis that prolonged unemployment increases the likelihood of conflict re-occurrence in a country emerging from a protracted civil war.

6.9 Chapter Summary

Using data from survey questionnaires, the aim of this study was to examine war victims' attitudes towards the peace process in Sierra Leone. An investigation of war victims' attitudes toward the peace process is salient for the following reasons. First, several organisations have expressed the view that the effect on victims in the aftermath of war deserves more attention than hitherto. In this regard, they have started to refocus their activities on addressing the issues of war victims because these are seen as crucial for peace and development to prosper, and hence avoid further conflict. Second, in the context of Sierra Leone, little is known about war victims' attitudes towards the peace process and research of such a nature will help to identify the issues which are essential to our understanding of post-conflict recovery and the development process. That is, knowing what influences war victims' attitudes towards peace is crucial for mitigating the potential risk of conflict re-occurrence.

Third, it provides important insight for those seeking to comprehend attitudes towards peace among war victims in countries emerging from conflict. Fourth, the findings will help policy-makers, development practitioners as well as donor agencies to understand conflict sensitive issues in conflict-affected economies. Fifth, the outcomes of this study have important policy implications for policy-makers, practitioners and donor agencies on how to achieve a sustainable peace in countries emerging from conflict. Sixth, this study contributes to extant work by capturing issues that are closely related to the feelings of those most affected, which will help policy-makers to develop coherent programmes that promote peace building as well as an awareness of the implications for long term economic development planning in such societies.

The current study contributes knowledge to the peace and conflict resolution literature given the following major findings: (a) A detailed analysis on whether being unemployed or self-employed has an association with attitudes towards peace among war victims has been provided for the first time. (b) Evidence has been found that women are more likely to have positive attitudes towards peace than men among war victims. Hence, gender is crucial in understanding attitudes towards peace amongst this cohort. (c) Positive attitudes towards the peace process increases with age. That is, although the estimates reveal some negativity amongst the younger of the cohort, positive attitudes tend to predominate amongst the elderly. (d) Foreign assistance, expectations of employment opportunities, expectations of improved economic conditions, security and a sense of stability as well as participation in the truth and reconciliation commission were found to be positively associated with a successful peace process among war victims in Sierra Leone. Consequently, it is contended that some or all of these factors are likely to play a significant role in other post-conflict contexts.

Appendix 6.1: Correlation Matrix on Attitudes towards the Peace Process among War Victims

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
ATP(2)	1																								
Female(3)	0.315	1																							
married(4)	0.010	0.350	1																						
Divorced(5)	-0.081	0.069	-0.059	1																					
Separated(6)	-0.096	0.139	-0.134	-0.019	1																				
Cohabited(7)	-0.312	0.252	-0.290	-0.042	-0.094	1																			
Age31-40 yrs(8)	-0.506	0.238	-0.067	0.053	0.094	0.337	1																		
Age51-60 yrs(9)	0.288	0.327	-0.180	-0.032	-0.092	-0.215	-0.489	1																	
Age60 +(10)	0.295	0.031	0.204	-0.018	0.005	-0.138	-0.541	-0.369	1																
Unemp(11)	-0.027	0.242	0.273	-0.080	-0.014	-0.017	-0.082	-0.058	0.149	1															
Selfemp(12)	-0.044	0.217	-0.255	0.083	0.020	0.031	0.084	0.048	-0.145	-0.970	1														
Widows(13)	0.355	0.715	-0.529	-0.076	-0.172	-0.350	-0.384	0.466	-0.006	-0.268	0.232	1													
Primary(14)	-0.094	0.097	0.027	-0.061	0.059	-0.068	-0.135	0.051	0.113	0.170	-0.151	-0.004	1												
Sec(15)	-0.021	0.019	-0.077	0.089	-0.062	-0.049	-0.058	0.061	0.014	-0.094	0.095	0.147	-0.480	1											
Tec/Voc(16)	-0.200	0.105	0.009	0.017	-0.082	0.237	0.229	-0.132	-0.124	-0.134	0.132	-0.161	-0.264	-0.284	1										
Undergrad(17)	0.093	0.112	-0.059	-0.018	0.244	-0.019	0.144	-0.073	-0.097	-0.150	0.112	-0.073	-0.132	-0.142	-0.078	1									
Postgrad(18)	0.051	0.037	-0.056	-0.010	0.089	0.009	0.011	-0.013	0.011	-0.120	0.064	0.030	-0.075	-0.081	-0.044	-0.022	1								
Trust in govt(19)	0.017	0.016	0.060	-0.101	-0.046	-0.115	-0.046	0.002	0.012	0.090	-0.089	0.015	0.158	-0.078	-0.077	0.040	0.005	1							
Foreign aid(20)	0.271	0.171	-0.033	-0.022	-0.098	-0.096	-0.149	0.086	0.095	0.029	-0.034	0.122	0.002	-0.016	0.021	-0.073	-0.041	-0.060	1						
Part. in TRC(21)	0.701	0.212	0.014	-0.029	-0.020	-0.210	-0.484	0.272	0.343	-0.014	0.002	0.246	0.089	0.045	-0.115	-0.160	0.056	-0.041	0.113	1					
Emp.Opp.(22)	0.009	-0.005	0.075	-0.098	-0.041	-0.103	-0.041	-0.007	0.012	0.082	-0.082	-0.015	0.174	-0.076	-0.067	0.045	0.008	0.974	-0.064	-0.065	1				
Eco. Cond.(23)	0.008	-0.001	-0.087	-0.035	0.069	-0.071	0.046	-0.007	-0.064	0.006	-0.021	0.035	0.009	0.066	-0.092	0.055	-0.036	0.243	-0.044	-0.041	0.221	1			
Co-exist(24)	-0.043	-0.030	0.073	-0.095	-0.023	-0.069	0.019	-0.044	-0.022	0.043	-0.036	-0.054	0.144	-0.072	-0.050	0.054	0.013	0.901	-0.071	-0.071	0.911	0.241	1		
Security & stability(25)	0.013	0.012	0.033	-0.100	-0.043	-0.107	-0.032	0.005	-0.008	0.078	-0.078	0.029	0.133	-0.066	-0.070	0.044	0.007	0.983	-0.063	-0.046	0.957	0.253	0.883	1	
Edu. Opp.(26)	-0.002	0.023	0.037	-0.104	-0.039	-0.083	-0.028	-0.007	-0.002	0.075	-0.074	0.024	0.136	-0.043	-0.090	0.033	0.001	0.969	-0.055	-0.048	0.944	0.245	0.873	0.953	1

Appendix 6.2: Ordered Probit Estimations with Age Squared -War Victims' Attitudes towards the Peace Process in Sierra Leone

Dependent Variable: Attitudes towards the Peace Process.

Ordered Probit	Column 1			Column 2			Column 3		
Variables	**Coefficient**	**Z-value**	**Mar. Effects**	**Coefficient**	**Z-value**	**Mar. Effects**	**Coefficient**	**Z-value**	**Mar Effects**
Female	0.0376**	2.23	0.00170	0.1540**	3.44	0.00789	0.1504**	2.91	0.00682
Widows	0.9706***	5.74	0.04985	1.0176***	3.88	0.03029	1.011***	3.88	0.04582
Foreign aid	1.1177***	5.90	0.05741	1.1637***	6.83	0.02811	1.169***	6.81	0.05298
Part. in the TRC	2.6316***	6.90	0.13517	2.742***	7.43	0.0644	2.742***	7.35	0.12426
Emp. opp.	0.1766**	1.10	0.00907	0.1011*	1.61	0.00818	1.0911***	5.15	0.04945
Eco. Conditions	0.1501**	1.91	0.00771	0.1965**	2.38	0.00585	0.1955**	2.34	0.00886
Coexistence	-0.0108*	-2.08	-0.00056	-0.0589*	-1.49	-0.00534	- 0.0239*	-2.19	-0.00108
Security & Rest. Stability	0.1747	1.21	0.00897	0.3471*	1.55	0.01366	0.4054**	2.01	0.01837
Self-employed	-0.7155***	-3.36	-.03675	-0.4454*	-1.79	-0.01368	-0.4471**	-1.80	-0.02026
Unemployed	-0.3343*	-1.58	-01717	-0.1274*	-2.49	-0.01099	-0.1404*	-3.54	-0.00636
Age	0.0135***	3.38	0.00069	0.0112*	1.35	0.00154	0.0137*	1.42	0.00062
Age Squared/100	-	-	-	-0.0204*	-1.65	-0.0016	-0.0227*	-2.73	-0.00103
Married	-	-	-	0.0614*	1.28	0.01017	0.04858*	2.22	0.00220
Divorced	-	-	-	-0.1842	-0.42	-0.01943	-0.2007	-0.46	-0.00909
Separated	-	-	-	-0.8552***	-3.07	-0.02368	-0.84224***	-3.01	-0.03818
Cohabiting	-	-	-	-0.2966*	-1.37	-0.01330	-0.2836*	-1.31	-0.01285
Edu. Opp. Children of Vic.	-	-	-	-0.3300*	-1.48	-0.01217	- 0.4764**	-1.93	-0.02159
Prim. Edu.	-	-	-	-0.2172*	-1.57	-0.00829	-0.2277*	-1.63	-0.01032
Sec. Edu	-	-	-	-0.4098***	-2.99	-0.01277	-0.3968***	2.88	-0.011798

Tech. / Vocational	-	-	-	-0.7324***	-4.22	-0.02398	-0.7358***	-4.22	-0.03334
Undergraduate	-	-	-	0.2160	0.78	0.01294	0.2057	0.74	0.00929
Postgraduate	-	-	-	0.4746	1.49	0.01848	0.4717	1.48	0.02138
Trust in government	-	-	-	-	-	-	1.9177***	4.20	0.08691
Chi2 (P-Value)	0.0000	-	-	0.0000	-	-	0.0000	-	-
Pseudo-R2	0.5568	-	-	0.5766	-	-	0.5788	-	-
No. of Obs.	1200	-	-	1200	-	-	1200	-	-

The dependent variable is attitudes towards the peace process; coded on a five point scale, where 1-5 denote highly negative, negative, indifferent positive and highly positive, respectively (see Table 1 for full definition). The marginal effects are calculated at the highest dependent variable score (5), whilst the reference groups include: Male, Single and War Wounded, Employed, Age 20-30 years and No formal schooling. ***, ** and * denote significance at the 1%, 5% and 10% levels, respectively.

Appendix 6.3: Linear Probability Regression on War Victims' Attitudes towards the Peace Process in Sierra Leone

Dependent Variable: Attitudes towards the Peace Process.

Variables	Column 1	t-statistics	Column 2	t-statistics	Column 3	t-statistics
Female	0.1892**	2.61	0.2047***	3.09	0.2090***	2.22
Widows	0.2341***	4.26	0.2783***	3.32	0.2817***	3.51
Foreign aid	0.0118*	3.50	0.0071	2.26	0.9656	2.34
Part. in the TRC	0.3740***	5.70	1.3784***	5.98	2.3776***	6.93
Emp. Opp	0.1364***	4.66	0.1153***	3.78	0.1682***	6.89
Eco. Conditions	0.0080	1.57	0.0215*	1.54	0.0213*	1.53
Coexistence	-0.0301	-1.09	-0.0303	-1.09	-0.0223	-1.79
Security & Rest. Stability	0.0528***	2.48	0.0467*	1.63	0.0468	1.23
Self-employed	-0.0699	-1.06	-0.0421	-1.59	-0.3412	-1.58
Unemployed	-0.0947	-1.43	-0.0718	1.99	-0.0741	-1.02
Age	0.00234***	3.37	0.0026***	3.70	0.0025***	3.49
Married	-	-	0.0095	1.36	0.0086	1.33
Divorced	-	-	-0.1687***	-3.36	-0.1647***	-3.28
Separated	-	-	-0.0894*	-1.62	-0.0833*	-2.51
Cohabiting	-	-	-0.0778***	-3.12	-0.8338**	-3.38
Edu. Opp. Children of Vic	-	-	-0.0168	-0.55	-0.0678*	-1.80
Prim.Edu	-	-	-0.0522**	-2.13	-0.0524**	-2.14

Sec. Edu	-	-	-0.1512***	-3.12	-0.1463***	-5.92
Tech. / Vocational	-	-	-0.0597**	-2.21	-0.0598**	-2.20
Undergraduate	-	-	0.0137	0.33	0.0159	0.38
Postgraduate	-	-	0.0151	1.02	0.0026	1.40
Trust in government	-	-	-	-	0.2042***	3.58
No. of Obs.	1200	-	1200	-	1200	-
F-test	177.08	-	113.32	-	178.12	-
(P-Value)	0.0000	-	0.0000	-	0.0000	-
R2	0.5999	-	0.6197	-	0.6218	-
Root MSE	0.2887	-	0.2827	-	0.2820	-

All coefficient estimates are reported above in columns 1, 2 and 3. The t-statistics are based on the robust estimates of the VCE. ***, **, and * denote significance at the 1%, 5% and 10% levels, respectively.

Appendix 6.4: Questionnaire on War Victims Attitudes towards the Peace Process in Sierra Leone.

This survey questionnaire is designed to collect information for the purpose of analysing data on the attitudes of War Victims (War Wounded and War Widows) towards the peace process in Sierra Leone. It also explores the perception of these victims on the role of foreign aid in the peace building process.

Please be assured that all your answers will be confidential and the results will be analysed and published without identifying names of respondents and the results will be used for academic purpose only.

Instruction: Please circle or mark X around responses.

Section A- Basic Characteristics of Respondents			
Date of interview:	Province or Region (Please mark X in one of the options below that describes your region): Western area ( ) Southern Province ( ) Eastern Province ( ) Northern Province ( )		
Location of Camp:			
Name of Respondent:	**Sex**		**Marital Status (**Please mark X in one of the options below that better describes your characteristics): 1. Married ( ) 2. Single ( ) 3. Divorce ( ) 4. Separated ( ) 5. Co -habited ( )
	M=0	F=1	
Age of Respondent	20-30 ( ) 31-45 ( ) 46-60 ( ) Above 60 ( )		

Employment Status (Please mark X in one of the options below that better describes your characteristics):	
1. Unemployed	
2. Self Employed	
3. Employed	
Category of Victims (Please mark X in one of the options below that better describes your characteristics):	
1. Amputees	
2. War Wounded	

Section B. (Please circle or mark X in the box below)

Foreign aid and Reconciliation(Please circle or mark X in the box below):

1. Providing foreign aid to all war victims should be part of any peace building efforts.

Agree	Indifferent	Disagree	Don't know
3	2	1	9

Participation (Please circle or mark X in the box below):

2. Participation in the truth and reconciliation commission by those affected by the conflict should be part of any peace building efforts.

Agree	Indifferent	Disagree	Don't know
3	2	1	9

Trust in the Government (Please circle or mark X in the box below):

3. Please could you tell me how much confidence you have in the government

Some Confidence	About the same 0r Indifferent	No Confidence	Don't know
3	2	1	9

Co-existence (Please circle or mark X in the box below):

4. Promoting co-existence amongst war victims and former aggressors should be part of any peace building efforts.

Agree	Indifferent	Disagree	Don't know
1	2	3	9

Expectations of Employment Opportunities (Please circle or mark X in the box below):

5. Providing employment opportunities for Sierra Leoneans is one of the most important requirements for a lasting peace.

Agree	Indifferent	Disagree	Don't know

Expectation of Improved Economic Conditions (Please circle or mark X in the box below):

6. Improving the economic conditions of all Sierra Leoneans is one of the most important expectations after the Lome Peace Agreement.

Agree	Indifferent	Disagree	Don't know
3	2	1	9

Expectation of Educational opportunities (Please circle or mark X in the box below):

7. Providing educational opportunities for children of war victims is one of the most important expectations now that the war has ended.

Agree	Indifferent	Disagree	Don't know
3	2	1	9

Security and Sense of Stability (Please circle or mark X in the box below):

8. Increasing security and restoring a sense of stability should be part of any peace building efforts.

Agree	Indifferent	Disagree	Don't know

Years of education (Please give your answer below):

9. Please can you tell me how many years did you spend either at school or at an institution of higher education? Answer:

Perception towards the Peace Process (Please circle or mark X in the box below):

10. Please can you tell me how do you feel so far about the peace process in Sierra Leone?

Highly positive	Positive	Indifferent	Negative	Highly negative	Don't know
5	4	3	2	1	9

Thank you very much for your time and effort to take part in this survey.

Chapter 7

7.0 Conclusions and Policy Recommendations

7.1 Introduction

This thesis has examined the effects of post-conflict aid on economic development. Compared with the existing literature, the focus has been on the relationship between foreign aid and foreign direct investment as well as foreign aid and labour market performance in conflict-affected environments. It has also examined war victims' attitudes towards the peace process with special reference to post-conflict Sierra Leone. The three strands of research interest (foreign aid and foreign direct investment, foreign aid and the labour market, and attitudes towards peace process among war victims) have been the key concerns aimed at creating deeper understanding of the relationship between foreign aid and economic development in conflict-affected economies. In most developing countries, foreign aid, foreign direct investment and the labour market are crucial factors. They can play a significant role in the accumulation of human and physical capital aimed at the enhancement of economic growth and development in these economies, with post-conflict countries being no exception.

Furthermore, an understanding of war victims' attitudes towards peace can be crucial to mitigating the potential risk for conflict reoccurrence and ensuring sustainable peace building. Most countries emerging from protracted long civil wars have attracted substantial sums of foreign aid [Boyce & Forman (2010)]. In this respect, several studies on post-conflict settings have focused on aid, policy and growth [Collier and Hoeffler (2002b), (2004)]; aid and conflict [Addison (2000)]; humanitarian and reconstruction aid [Damekas et al. (2002)]; and determinants of post-conflict economic assistance [Kang and Meernik (2004)]. However, none of these studies explored the effects of disaggregated aid on FDI and labour market performance in such environments, nor have they examined war victims (war wounded and war widows) attitudes towards the peace process in the case of post-conflict Sierra Leone.

Chapter 1 introduced the topic and the background as well as the motivation of the study. The chapter also highlighted the aims and objectives of the study and briefly discussed the advantages of the methodologies employed for the empirical studies. Also presented are the contributions to literature, followed by a briefly summary of the estimated results, as well as the structure of the thesis. Chapter 2 discussed the theoretical framework and reviewed the empirical literature, as well as identifying the gaps in this extant research. Chapter 3 discussed the concepts and definitions salient to post-conflict economies in

developing countries. Chapters 4 to 6 provided three empirical analyses, which formed the basis of the main contributions of this work. More specifically, Chapter 4 examined the effect of disaggregated commitment aid and disbursed aid on foreign direct investment in post-conflict environments. The panel nature of the data permitted the estimation of fixed effects, random effects and instrumental variables (IV) regarding the effect of commitment aid (i.e. complementary aid and physical capital aid) and disbursed aid (multilateral aid, grant, technical assistance and bilateral aid) on foreign direct investment in these economies. To estimate the effect of the long-run relationship between multilateral disbursed aid and foreign direct investment, an error correction panel co-integration approach was used, which took in to account cross-sectional dependence by means of bootstrapping. Disbursed aid was used rather than committed aid because it reflects the actual amount of aid allocated to the focal recipient economies.

Chapter 5 examined the relationship between disaggregated disbursed aid and the labour market, as well as the demographic components of the labour market (females and youths) in post-conflict economies. Fixed and random effects regressions were employed to control for country specific effects. Reverse causality tests were deployed to identify any such causality between disaggregated aid disbursed and labour market outcomes. The use of the error correction panel co-integration technique enhanced the estimation of the long-run relationship between foreign aid and the labour market in these economies. Next, Chapter 6 examined war victims' attitudes towards the peace process in post-conflict Sierra Leone using ordered probit approach. This, the concluding chapter summarises the main findings of the thesis, discusses policy implications and puts forward suggestions for future research.

The remainder of this chapter is set out as follows: Section 7.2 presents an overall summary of the empirical results of the thesis, whilst Section 7.3 discusses the contributions to the literature. Section 7.4 discusses the policy implications on the relationship between foreign aid and FDI, whilst Section7.5 covers those regarding the relationship between foreign aid and labour market. This is followed by Section 7.6, which considers the implications on war victims' attitudes towards the peace process in post-conflict Sierra Leone. Finally, Section 7.7 discusses the limitations of the thesis and puts forward suggestions for future research directions.

7.2 Overall Summary of the Empirical Results

As mentioned above, Chapters 4 to 6 presented the major findings of this thesis. In Chapter 4, the fixed effects, random effects and IV were used to examine the effects of commitment aid as well as disbursed aid on foreign direct investment in post-conflict environments. An error correction based panel co-integration technique was also employed to examine the long-run relationship between multilateral disbursed aid and foreign direct investment in these economies. The results in Chapter 4 entailed some novel findings. First, a statistically significant and positive relationship between physical capital aid and foreign direct investment in a post-conflict environment was found and the magnitudes of the effects were larger relative to those in peaceful developing countries. Thus, this indicates that physical capital aid has a crowding-in effect on foreign direct investment in post-conflict environments. This finding is consistent across specifications. Although previous studies by Bhavan et al. (2011), have also found physical capital aid of having a crowding-in effect on foreign direct investment in the case of South Asian economies, the current finding is novel because the relationship between physical capital aid and foreign direct investment in conflict-affected economies have been provided for the first time.

Second, evidence of a negative relationship between conflict and foreign direct investment in post-conflict environments emerged, which was robust across specifications and estimators. This evidence is generally consistent with previous studies, such as Kazunobu et al. (2013) and Margit (2010). Hence, it can be argued that conflict has a negative association with foreign direct investment in these economies. Third, the study also found a positive and statistically significant relationship between primary commodity exports and foreign direct investment in conflict-affected environments and the magnitude of the effect appears to be somewhat larger (in absolute value) relative to that in peaceful developing countries, which indicates the relevance of primary commodity exports for the inflow of foreign direct investment in these settings. This result resonates with the outcomes of previous studies by Addison and Heshmati (2003) and Asiedu (2006). Fourth, the relationship between complementary aid and foreign direct investment was found to be negative and statistically significant. However, the combined association of physical capital aid and complementary aid on foreign direct investment was positive and statistically significant across different specifications and this corroborates with findings by Saleya and Sunesen (2012). Fifth, the estimated result (using IV, LIML, and Fuller's modified LIML estimators) for inflation showed a negative association with foreign direct investment in post-conflict environments. Sixth, openness to trade emerged as having a positive association with foreign direct investment inflows in these environments. Several

researchers, such as Liargovas et al. (2012), Harms and Lutz (2006), Selaya and Sunesen (2008), Selahuddin (2009) and Addison and Heshmati (2003) have also found a positive and significant relationship between trade openness and private foreign investment. Seventh, the results further indicate that multilateral aid, grants, and bilateral-donor aid have a positive and significant relationship with foreign direct investment in these economies. Eighth, using the error correction panel co-integration approach, it was elicited that there is presence of a long-run relationship between multilateral disbursed aid and foreign direct investment and the result is consistent even after taking into account cross-sectional dependence by means of bootstrap distribution.

The relationship between disbursed (disaggregated) aid and the labour market, as well as the demographic components of this market (females and youths) in conflict-affected economies were examined in Chapter 5. The fixed effects, random effects, reverse causality and panel co-integration estimation techniques were employed to examine the relationship. The relationship was assessed along with other independent variables in the model and the major findings are as follows. First, there is a positive and significant relationship between technical aid and youth labour force participation, as well as employment among the young working-age population. Second, the inflow of multilateral disbursed aid was also found to be positively associated with employment among this group. Third, when an interaction term between disaggregated aid and foreign direct investment was used to measure the indirect relationship with labour market outcomes, the findings revealed that total aid, multilateral aid and bilateral aid interacted with foreign direct investment are negatively associated with the overall and female labour force participation rates. While total aid and technical aid interacted with foreign direct investment, have a similar association for the young working-age population. Also, multilateral aid and total aid were found to be negatively associated with employment among the female working-age population.

Fourth, based on the reverse causality tests between disaggregated aid and labour market outcomes, it was apparent from the results that there is no evidence of causality running from overall labour force participation to total aid, multilateral aid, bilateral aid or technical aid. In addition, no evidence was found of causality running from the employment rate to these aid variables. However, significant causality running from female labour force participation to multilateral aid and from female employment to multilateral aid emerged, but in neither case did the reverse hold. In the case of youth labour force participation, there was evidence of reverse causality between this and

technical aid. Fifth, foreign direct investment was found to be positively associated with labour force participation among the total and female working-age populations in these economies, findings which corroborate with previous studies. Sixth, the estimates on conflict emerged as being negatively associated with both labour force participation and employment among the young working-age group, as well as for labour force participation among the female working-age group. Seventh, there was evidence of a positive and significant association between tertiary school enrolments and overall labour force participation, on the one hand, and female labour force participation, on the other. Eighth, there was limited evidence of a long-run relationship between total aid and employment rate.

Chapter six examined war victims' attitudes towards the peace process in post-conflict Sierra Leone using an ordered probit estimation technique, followed by a linear probability model (see appendix 8 for estimates using the linear probability model). The ordered probit was employed to examine the above relationship owing to the following advantages. First, it can be useful for analysing attitude scale models as it can "enhance the reflection of both the intensity and direction of the opinion of respondents" (in this case, war victims) [Long and Freese (2006)]. Second, it provides a convenient way for examining war victims' attitudes towards the peace process, because of the categorical nature of the dependent variable [Xie et al. (2009)]. Third, attitudes towards the peace process can be associated with many factors and since they exhibit ordering, the use of ordered probit can therefore be useful in modelling such an association. Fourth, an ordered probit can also be beneficial for analysing micro-level data [Basile, et al. (2003)] and a fifth advantage is, it can take into account both the discrete and ordinal nature of the dependent variable [Bennell, et al. (2006)]. Sixth, it can be estimated using several software packages, as well as being theoretically useful relative to other models for analysing data that are discrete or ordinal in nature [Kockelman et al. (2002)]. Seventh, it can identify significant relationships between a dependent variable (in this case, attitude towards the peace process) and the independent variables [Jung et al. (2012a), Torgler et al. (2007), Torgler and Schneider (2005) and (2004)]. Finally, it can enhance the estimation of marginal effects on the dependent variable. Estimates from this chapter revealed unique findings which are as follows.

First, there was evidence of a positive correlation between women and attitudes towards peace relative to men among war victims and this finding was consistent even after controlling for other variables. Thus, this might be interpreted as an indication that gender is crucial in understanding attitudes towards peace in countries emerging from conflict.

This result is consistent with previous studies by Gwartney-Gibbs and Lach (1991), Hermann et al. (2002) and Wilcox et al. (1996). Second, it was observed that, on the one hand, war victims between the ages 46 and 60 years were positively associated with attitudes towards the peace process relative to those aged from 20 to 30. Whilst on the other hand, there was evidence of a significantly negative association for the cohort between the ages 31 to 45 on these attitudes. Thus, indicating that taking into account different age groups' attitudes is crucial for understanding attitudes towards peace among war victims in post-conflict societies. Third, participation in the truth and reconciliation commission is found to be positively associated with attitudes towards how to achieve peace among war victims. Fourth, evidence emerged of a positive association (in most specifications) between increased security and stability and attitudes towards the peace process among war victims. Fifth, a positive and statistically significant association was found between providing employment opportunities and attitudes towards achieving peace amongst war victims.

Sixth, evidence from the results also showed that expectation for improved economic conditions has a positive and statistically significant association with attitudes toward the peace process. This finding also resonates with a previous finding by Al-Haj et al. (1993). A seventh major finding in this chapter is that being unemployed was found to be negatively associated with attitudes towards the peace process, whilst this was not the case for the employed. However, this outcome is not surprising, because unemployment, especially among the youths, has been a major challenge to the government and was one of the initial causes of the civil war in Sierra Leone [TRC (2004)]. Being unemployed is therefore crucial to providing understanding regarding attitudes towards the peace process among war victims and this corroborates with previous findings by Vinck and Pham (2009). Eighth, there was evidence of a negative association between co-existence and attitudes towards peace process and these estimated results were consistent across all specifications. This result also corroborates with those of previous studies, such as Georgiades (2007) and Vinck and Pham (2009). Ninth, the provision of foreign aid is also found to be positively associated with attitudes towards the peace process among war victims in Sierra Leone. Tenth, the evidence also suggested there is a positive association (in most specifications) between married people and attitudes towards peace process. However, being separated or cohabiting were found to be more negatively associated with attitudes towards the peace process than for singles, who were the reference group. Eleventh, the estimated results also suggest there is a negative correlation between low

education attainment (i.e. primary, secondary and technical/vocational) and attitudes towards peace process in the case of Sierra Leone.

7.3 Contributions to the Literature

Several studies on post-conflict societies have focused on aid, policy and growth [Collier and Hoeffler (2002b, 2004)]; aid and conflict [Addison (2000)]; humanitarian and reconstruction aid [Damekas et al. (2002)]; and the determinants of post-conflict economic assistance [Kang and Meernik (2004)]. It is posited that this thesis contributes to the literature on the effects of post-conflict aid in several ways, which were highlighted in Chapters 4, to 6 and include the following.

The first contribution is with regards to examining the relationship between commitment aid (i.e. complementary aid and physical capital aid) and foreign direct investment in conflict-affected environments using panel regression analysis, as well as instrumental variable estimators [IV, LIML and Fuller's modified LIMF (with alpha equal to 1)]. The relationship between complementary aid and foreign direct investment, as well as physical capital aid and foreign direct investment, although being researched in some empirical studies, has been completely overlooked in the context of conflict-affected environments. The results show that there is positive and significant relationship between physical capital aid and foreign direct investment in these environments.Thus, this indicates that physical capital aid has a crowding-in effect on foreign direct investment in these economies.

The second contribution concerns estimating the long-run relationship between multilateral disbursed aid and foreign direct investment in conflict-affected economies, using the error correction panel co-integration approach of Persyn and Westerlund (2008). The results arrived at indicate evidence of a long-run relationship between multilateral disbursed aid and foreign direct investment in the focal economies. No study to best of this researcher's knowledge has examined the above relationship using this technique in this context.

Third, several studies have employed panel data analysis to examine the relationship between foreign aid and foreign direct investment. Although this technique was also used for this thesis, new knowledge has been contributed because estimates of the relationship between disbursed disaggregated aid (multilateral aid, grant, technical assistance, bilateral aid, and major bilateral-donor aid) and foreign direct investment in conflict-affected countries have been provided for the first time.

The fourth novel contribution of this thesis is with regards to the estimates of the relationship between foreign aid and the labour market, as well as certain demographic components of the latter (females and youths) in conflict-affected economies using a panel regression analysis and reverse causality tests. Despite the vast interest in foreign aid, there is only one study, to the best of this author's knowledge, which has examined the relationship between reconstruction aid and the labour market using ordinary least squares (OLS) and instrumental variable (IV) estimations, which was in the case of Iraq [see Iyengar et al. (2011)]. For the current thesis, cross-country panel regression analysis (fixed and random effects), and reverse causality tests are used to estimate the relationship between disaggregated aid and the labour market, as well as the demographic components of the labour market (females and youths) in these economies. The estimates reveal that technical aid has a positive and significant relationship with labour force participation and employment among the young working-age population. Multilateral aid has also been found as having a positive relationship with employment among the young working-age group.

The fifth significant contribution of this thesis is the use of the error correction panel co-integration approach of Westerlund (2007) and Persyn and Westerlund (2008) to estimate the long-run relationship between foreign aid and employment rate. No previous study on post-conflict aid has explored this relationship using this approach, which allows for cross-sectional dependence by means of bootstrapping. In addition, it can capture both long-run and short-term dynamics; and it can enhance the estimation of intercept and trend parameters. Finally, the approach can control for serially correlated error terms, all of which provides new evidence to the limited existing literature in this area of study. The results show that there is weak evidence of a co-integrating equilibrium relationship between foreign aid and employment rate in these economies.

The sixth contribution of this thesis, as detailed in chapter six, pertains to the analysis using unique survey data of war victims' attitudes towards the peace process in post-conflict Sierra Leone. This unique survey data has offered the opportunity to investigate thoroughly variables that are associated with attitudes towards peace among war victims in Sierra Leone. An understanding of these factors could be crucial to mitigating the potential risk for conflict re-occurrence and for a sustainable peace building, which may contribute to economic development.

The thesis further adds to extant work by employing ordered probit and linear probability estimation techniques to examine war victims' attitudes towards the peace process in post-

conflict Sierra Leone. Most studies on peace attitudes have used bivariate regression or multivariate regression analysis and to the best of this researcher's knowledge, this study is the first to have examined war victims' attitudes towards peace using ordered probit approach. The estimates indicate a positive and significant relationship between participation in the truth and reconciliation commission and attitudes towards the peace process amongst war victims in Sierra Leone.

Finally, this thesis has uniquely provided a detailed analysis on whether being unemployed or self-employed has an association with attitudes towards peace amongst war victims in Sierra Leone using the aforementioned approach. The results show that being unemployed is negatively associated with attitudes towards the peace process relative to those employed among war victims in Sierra Leone. However, the provision of foreign aid is found to have a positive association with attitudes towards the peace process in Sierra Leone.

7.4 Policy Implications for Foreign Aid and Foreign Direct Investment

Although establishing generic policy initiatives for post-conflict economies is not an easy task, given the variations in terms of history, economic experiences, culture, and causes of conflict, the empirical findings from this thesis still have important policy implications in terms of the relationship between foreign aid and foreign direct investment in these economies. An important finding is that physical capital aid (geared towards reconstruction, agriculture, trade and banking) is positively associated with foreign direct investment, thus implying that it has a complementary effect (crowding-in effect), on foreign direct investment in these economies. Thus, increasing physical capital aid towards reconstruction, agriculture, financial market development (banking) is an important predictor for attracting foreign direct investment in these economies. Therefore, their governments should improve reconstruction and agricultrure, as well as the quality of their banking systems and trade, in order to attract more foreign investment into their economies.

The second policy implication of this thesis is that post-conflict economies need to pay more attention to reducing any prospects for conflict reoccurrence in order to atract more foreign direct investment, because the former was found to be negatively associated with the latter in these countries. Post-conflict economies should therefore aim to build functional institutions that address the root causes of conflict and adopt reconciliatory measures, as well as establish a legal framework that drives up confidence in the investment sectors. In addition, they should strive to maintain stable government (reducing

political risks), because if they do so they are more likely to attract foreign direct investment.

Third, although primary commodity exports were found to attract foreign direct investment in these environments, much still needs to be done, because they can be vulnerable to fluctuations in demand for such natural resources. High value added production and diversification of exports should be encouraged, whilst cross-border smuggling needs to be clamped down on. Moreover, good natural resource governance should be adopted to make these economies more attractive to foreign direct investment. That is, governments should be transparent about the revenues they receive from natural resources, as well as there being proper management of these resources for the benefit of all citizens. Primary commodity exports can be very useful if efficiently managed, otherwise this can lead to conflict reoccurrence in these economies. Collier et al. 2003 identified four ways through which the dependence on primary commodity could cause further conflict: (i) if the primary commodity is used to finance rebellion, (ii) increased corruption in governance, (iii) an increase the incentives for secession and (iv) increased exposure to shocks. Post-conflict economies should therefore reduce corruption by instituting anti-corruption measures, restraining the finance of any insurgence, mitigating adverse shocks, and restraining dissidents' access to commodity markets [Collier et al. (2003)]. Exports promotion should also be encouraged in favour of import substitution in these economies. In particular, they should pay more attention to providing value-added natural resources that contribute to their economic development goals.

Fourth, physical capital aid combined with complementary aid was found to be positively associated with foreign direct investment, which implies that these two types of aid are needed to facilitate more foreign direct investment inflow into post-conflict economies. While physical capital aid attracts foreign direct investment inflow, a combination of this with social (health, education and water) and economic (transportation, energy and communication sectors) and infrastructural investments would attract even more into these economies. Moreover, they should tailor physical capital aid and infrastructure aid investments (social and economic infrastructures) towards complementing foreign direct investment, which in turn will contribute to economic development. Such investments can increase the marginal productivity of capital, which in turn attracts more foreign investment [Selaya and Sunesen (2012)]. In this respect, aid investment in human capital (education and health), as well as in road networks, efficient energy and communication system should be encouraged. In addition, they should promote infrastructural investments,

as well as private and public investment in human capital to tackle the shortage of skilled workers, where this exists.

Fifth, it is very important to keep inflation low by encouraging prudent monetary measures in these economies. For, low inflation is likely to enhance relatively more foreign direct investment inflow, because the cost of resource inputs (human and material) would be reduced, which positively influences output levels in such economies. Post-conflict economies can use the interest rate and reduce government spending to achieve lower inflation. In essence, these economies should increase their effort towards macroeconomic stability in order to attract more foreign direct investment.

Sixth, multilateral aid, grants and major bilateral-donor aid have been found to be closely related with foreign direct investment and therefore, post-conflict economies should continue to strengthen their relationship with donors in order to attract more such investment. More specifically, establishing or continuing relationships between recipients' post-conflict economies and major donors, such as the UK, France, the U.S. and the EU as well as multilateral organisations should be encouraged. Moreover, bilateral investment agreements should be promoted especially with major donors partners.

Furthermore, these economies should pay more attention to improving their investment climate for new investors, as well as providing incentives for returning ones, such as by establishing free economic zones for the importation of specific goods, implementing flexible regulations and improving the quality of the infrastructure. Moreover, the establishment of one-stop-shops, registration, licensing and promotion of new investment by creating friendly environments for both domestic and foreign investors through reforms of specific domestic laws relating to investments are other initiatives that could be pursued. In particular, stable and clearly defined tax regimes could serve as an incentive for long-term investment and sustainable development in these economies.

7.5 Policy Implications for Foreign Aid and the Labour Market

The empirical findings on the relationship between foreign aid and the labour market also have important policy ramifications, which include the following.

As foreign direct investment was found to be positively associated with labour force participation among the total and female working-age populations, this implies that it is a strong predictor for labour market performance in the focal economies. Post-conflict economies' efforts should be geared towards encouraging more foreign direct investment, especially that of high value that contributes to more job opportunities as well as the spill-

over of knowledge and technology. They should also pursue labour market regulations that attract more foreign direct investment and that lead to an increased labour market performance. Furthermore, they should pay more attention to investing in education and technical training of their labour force (including women) in order to attract relatively high-quality foreign direct investment. In addition, they need to invest more in education and strengthen job training, as well as encouraging high rates of foreign direct investment in order to shift from recovery to the development stage. In particular, they should strive to enhance public and private investment initiatives relating to human capital, education and institutional capacity in order to achieve high absorptive capacity.

Since technical aid and multilateral aid have been found to be closely related with youth labour force participation, as well as employment among the young working-age population, an increase in these types of aid is needed to enhance labour market performance. Moreover, such economies should tailor foreign assistance towards providing tertiary education and technical training for youths as well as establishing or extending scholarship schemes geared towards increased tertiary school enrolments. In addition, aid from multilateral organisations should be harnessed towards programmes that enhance employment among the young working-age population, which will in turn contribute to economic development. In essence, post-conflict economies should create an integrated and comprehensive approach that links multilateral and technical assistance to high-value foreign direct investment. In particular, the goal should be to attract such aid by improving skilled labour and knowledge transfer, which would also contribute to the consolidation of sustainable peace and development.

As no evidence was found that foreign aid interacts with foreign direct investment to reinforce the labour market in a positive way, post-conflict economies should pursue policies that attract outside investment, which enhances labour market performance. Given that conflict has been found to be closely associated with labour force participation and employment among the young working-age group, as well as with labour force participation among the female working-age group, this implies that these demographics of the population are more likely to be highly vulnerable during such times than other cohorts. Post-conflict economies need to purse conflict prevention campaigns, as well as addressing the root causes of the conflict. Most importantly, efforts should be geared towards foreign direct investment that creates job opportunities for the citizens and former combatants so as to minimize any conflict reoccurrence in these economies.

7.6 Policy Implications Regarding War Victims' Attitudes towards the Peace Process

The analyses on attitudes towards the peace process among war victims in post-conflict Sierra Leone have three important implications.

The first is in relation with the issue of unemployment among war victims, whereby this was found to be negatively associated with attitudes towards the peace process among the focal groups of war wounded and widows. An implication of this is that, the government of Sierra Leone needs to take the issue of unemployment very seriously, not only regarding these two focal groups, but also in relation to other sections of the population who are lacking employment opportunities. It was one of the causes of the war and still remains a threat that is undermining positive attitudes towards the peace. In particular, the government needs to pay more attention to war victims, especially those unemployed, by providing more and better job opportunities for them as well as youths, if a sustainable peace is to be achieved.

A second implication of this finding and analysis is the attitudes of those aged between 31 and 45 years towards the peace process among war victims as were found to be negatively associated with the peace process. Although the government of Sierra Leone has included some youth programmes on the agenda for change and prosperity, much is still needed to be done for this cohort. The young generation constitute the largest population and is therefore crucial to the development process of Sierra Leone. Both government and donor organisations need to engage the young generation with the development process as this is essential for mitigating the potential risk of conflict reoccurrence and thus ensuring sustainable peace building in Sierra Leone.

Finally, a low level of education (i.e. primary education, secondary education and technical/vocation education) emerged as being negatively associated with attitudes towards peace among war victims. In this respect, war victims with low levels of education who are willing to learn should be given opportunities to attend further education and they should be guaranteed a job on completion of education or training. This could be achieved by extending the provision of free education or scholarship schemes for those affected by the government in conjunction with donor organisations. More specifically, it would be helpful if youths and women are encouraged by offering them continued assistance (by government through donor support), as well as providing employment opportunities for them. In sum, catering for their needs in any sustainable peace and development process would contribute immensely to mitigating any risk of conflict re-occurrence.

7.7 Limitations of the Study and Future Research Proposals

An important limitation of this thesis is that it did not include foreign direct investment inflow disaggregated by sector (such as natural resource sector, services sector and manufacturing sector), because of data unavailability for conflict-affected countries. The foreign direct investment market database from the Financial Times is the only one to the best of my knowledge that provides such data, but it does not cover most conflict-affected countries. Their data covers green field investments and investigating the effects at sectoral level would have been helpful. Moreover, data on the manufacturing sector would have been beneficial, because it contributes to long term economic growth. However, the time span of their data is very short, thereby making it impossible to use them to estimate the relationship between foreign aid and foreign direct investment inflow disaggregated by sector with panel regression analysis. Consequently, for this study net inflow of foreign direct investment expressed as a percentage of GDP, obtained from the WDI April 2012, had to be used.

Generally, data availability for countries emerging from conflict is problematic and this meant that there some relevant variables were not included in the models used. For instance, data on quality of governance and labour market regulations for post-conflict countries were unavailable over a long time span, thus leading to their non-inclusion as variables in to the models employed in Chapters 4 and 5. This limitation may have had a negative impact on the accuracy of the estimate.

The findings on the attitudes towards the peace process among the studied war victims cannot be generalized to all victims in Sierra Leone, because only two categories (war wounded and war widows) out of five were surveyed. Moreover, the category for war widows only included women. It would have been helpful if men were also included in the war widowed category.

Another relevant limitation is the failure to address the issue of structural breaks, which may occur as a result of civil wars or coups. The probability of sudden changes in policies associated with such events need to be factored in to models investigating post-conflict economies. In this respect, further research is required that includes more post-conflict variables, such as institutional quality (quality of governance) and other excluded instruments in order to enhance the robustness of the outcomes. Furthermore, as mentioned above, the issue of structural breaks in post-conflict environments is another important area for further research. To best of my knowledge, no empirical studies have addressed this in the context of post-conflict economies and hence, such enquiry would prove beneficial.

Future research should therefore take into account this issue, as well as foreign direct investment inflow disaggregated by sector for countries emerging from conflict. Furthermore, as war wounded and war widows are not the only war victims in Sierra Leone, for there are child soldiers and victims of sexual violence, investigation into their circumstances would also provide insights into understanding attitudes towards the peace process among war victims and hence, help to avert further conflict.

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